

THE IMPACT OF THE ACCULTURATION PROCESS  
ON CONSUMER PURCHASING PATTERNS

By

JOSEPH FRANKLIN HAIR, JR.

A Dissertation Presented To The Graduate Council Of  
The University Of Florida  
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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS . . . . .	iii
LIST OF TABLES . . . . .	vi
ABSTRACT . . . . .	x
CHAPTER	
I      INTRODUCTION . . . . .	1
Background of the Problem . . . . .	3
Statement of Purpose . . . . .	7
Significance of the Research . . . . .	7
Relevance of the Literature . . . . .	8
Culture . . . . .	9
Cultural Change . . . . .	11
Acculturation . . . . .	12
Consumer Behavior . . . . .	14
Purchasing Patterns . . . . .	16
Related Research . . . . .	17
Fong's study of the assimilation of Chinese in America	17
Weinstock's study of the acculturation process of	
Hungarian refugees . . . . .	17
Hodges' study of acculturation and product meaning .	18
Theoretical Framework . . . . .	19
Research Hypotheses . . . . .	21
Hypothesis I . . . . .	21
Hypothesis II . . . . .	21
Hypothesis III . . . . .	21
Hypothesis IV . . . . .	21
II      RESEARCH METHODOLOGY . . . . .	22
The Questionnaire . . . . .	22

Global Acculturation Tests . . . . .	23
Stick Figures Test . . . . .	23
Campisi Scale . . . . .	24
Consumer Acculturation Test . . . . .	26
Construction of the preliminary CAT . . . . .	27
Revision of the CAT . . . . .	29
Construction of the final CAT . . . . .	30
Demographic Data Sheet . . . . .	32
Integration of the Four Research Instruments . . . . .	33
Pre-testing the Final Standardized Questionnaire . . . . .	35
The Respondents . . . . .	35
Field Procedure . . . . .	36
<b>III DATA ANALYSIS AND INTERPRETATION . . . . .</b>	<b>38</b>
Stepwise Multiple Regression Analysis . . . . .	39
Tests of the Research Hypotheses . . . . .	40
Hypothesis I . . . . .	44
Hypothesis II . . . . .	45
Hypothesis III . . . . .	46
Hypothesis IV . . . . .	46
Multiple Factor Analysis . . . . .	47
Interpretation of MCS and CAT Factors . . . . .	49
Canonical Correlation Analysis . . . . .	60
Results of the Canonical Analysis . . . . .	61
<b>IV SUMMARY AND CONCLUSIONS . . . . .</b>	<b>67</b>
Summary . . . . .	68
Conclusions and Implications . . . . .	70
Final Comments . . . . .	77
<b>APPENDICES . . . . .</b>	<b>79</b>
APPENDIX A - Data Concerning Construction of the Consumer Acculturation Test . . . . .	80
APPENDIX B - The Standardized Questionnaire . . . . .	121
APPENDIX C - Supplementary Data From the Statistical Analyses . . . . .	145
<b>BIBLIOGRAPHY . . . . .</b>	<b>168</b>
<b>BIOGRAPHICAL SKETCH . . . . .</b>	<b>176</b>

## LIST OF TABLES

Table		Page
1	SUMMARY OF STEPWISE MULTIPLE REGRESSIONS USING THE CAT AS THE DEPENDENT CRITERION VARIABLE . . . . .	41
2	SUMMARY OF STEPWISE MULTIPLE REGRESSION USING THE SFT AS THE DEPENDENT VARIABLE . . . . .	42
3	SUMMARY OF STEPWISE MULTIPLE REGRESSION USING THE MCS AS THE DEPENDENT VARIABLE . . . . .	43
4	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ONE ON THE MODIFIED CAMPISI SCALE . . . . .	51
5	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TWO ON THE MODIFIED CAMPISI SCALE . . . . .	51
6	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR THREE ON THE MODIFIED CAMPISI SCALE . . . . .	52
7	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FOUR ON THE MODIFIED CAMPISI SCALE . . . . .	52
8	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FIVE ON THE MODIFIED CAMPISI SCALE . . . . .	52
9	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SIX ON THE MODIFIED CAMPISI SCALE . . . . .	53
10	INTERCORRELATIONS OF OBLIQUE REFERENCE FACTORS FOR THE MODIFIED CAMPISI SCALE . . . . .	53
11	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ONE ON THE CONSUMER ACCULTURATION TEST . . . . .	54
12	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TWO ON THE CONSUMER ACCULTURATION TEST . . . . .	54

Table		Page
13	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR THREE ON THE CONSUMER ACCULTURATION TEST . . . . .	55
14	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FOUR ON THE CONSUMER ACCULTURATION TEST . . . . .	55
15	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FIVE ON THE CONSUMER ACCULTURATION TEST . . . . .	56
16	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SIX ON THE CONSUMER ACCULTURATION TEST . . . . .	56
17	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SEVEN ON THE CONSUMER ACCULTURATION TEST . . . . .	56
18	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR EIGHT ON THE CONSUMER ACCULTURATION TEST . . . . .	57
19	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR NINE ON THE CONSUMER ACCULTURATION TEST . . . . .	57
20	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TEN ON THE CONSUMER ACCULTURATION TEST . . . . .	57
21	ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ELEVEN ON THE CONSUMER ACCULTURATION TEST . . . . .	58
22	INTERCORRELATIONS OF OBLIQUE REFERENCE FACTORS FOR THE CONSUMER ACCULTURATION TEST . . . . .	59
23	CANONICAL ROOTS, CANONICAL R'S, CHI SQUARE VALUES, DEGREES OF FREEDOM, AND PROBABILITY LEVELS FOR CANONICAL FUNCTIONS . . . . .	62
24	RELATIONSHIPS BETWEEN VARIABLES AND CANONICAL FUNCTIONS . . . . .	63

Table		Page
A-1	ACCULTURATION FACTORS IDENTIFIED IN LITERATURE SEARCH . . . . .	81
A-2	ACCULTURATION FACTORS OBTAINED FROM PERSONAL INTERVIEWS . . . . .	82
A-3	COMPOSITE ACCULTURATION FACTORS . . . . .	83
A-4	MEANS AND STANDARD DEVIATIONS OF INDIVIDUAL ITEMS BY ACCULTURATION FACTOR OF PRELIMINARY FORM OF THE CONSUMER ACCULTURATION TEST . . . . .	84
A-5	ITEM ANALYSIS PROCEDURE: INDEX OF DISCRIMINATION OF INDIVIDUAL ITEMS BY ACCULTURATION FACTOR FOR REVISED FORM OF THE CONSUMER ACCULTURATION TEST	91
C-1	ORTHOGONAL FACTOR MATRIX ROTATED TO VARIMAX CRITERION FOR THE MODIFIED CAMPISI SCALE . . . . .	146
C-2	ORTHOGONAL FACTOR MATRIX ROTATED TO VARIMAX CRITERION FOR THE CONSUMER ACCULTURATION TEST . . . . .	147
C-3	CORRELATION MATRIX FOR THE MODIFIED CAMPISI SCALE WITH SQUARED MULTIPLE R'S AS COMMUNALITY ESTIMATES . . . . .	149
C-4	CORRELATION MATRIX FOR THE CONSUMER ACCULTURATION TEST WITH SQUARED MULTIPLE R'S AS COMMUNALITY ESTIMATES . . . . .	154
C-5	MEANS AND STANDARD DEVIATIONS FOR THE THREE DEPENDENT CRITERION VARIABLES INCLUDED IN THE STEPWISE MULTIPLE REGRESSIONS . . . . .	160
C-6	MEANS AND STANDARD DEVIATIONS FOR THE FOURTEEN INDEPENDENT PREDICTOR VARIABLES INCLUDED IN THE CANONICAL CORRELATION ANALYSIS AND THE STEPWISE MULTIPLE REGRESSIONS . . . . .	160
C-7	MEANS AND STANDARD DEVIATIONS FOR THE EIGHTEEN DEPENDENT CRITERION VARIABLES INCLUDED IN THE CANONICAL CORRELATION ANALYSIS . . . . .	161
C-8	CORRELATION MATRIX FOR STEPWISE MULTIPLE REGRESSION ANALYSIS . . . . .	162

Table		Page
C-9	CORRELATION MATRIX FOR FOURTEEN PREDICTOR VARIABLES INCLUDED IN THE CANONICAL ANALYSIS . . . . .	164
C-10	CORRELATION MATRIX FOR EIGHTEEN CRITERION VARIABLES INCLUDED IN THE CANONICAL ANALYSIS . . . . .	165
C-11	INTERCORRELATION MATRIX OF FOURTEEN PREDICTOR AND EIGHTEEN CRITERION VARIABLES INCLUDED IN THE CANONICAL ANALYSIS . . . . .	167

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Chairman: Dr. J. D. Butterworth

Major Department: Marketing

The purpose of this exploratory research was to identify and examine, in a dynamic setting, the purchasing patterns of a group of foreign students at the University of Florida; to derive implications and draw inferences, and to reach conclusions regarding relationships which may exist between culture, acculturation, and consumer behavior.

Concepts from cultural anthropology (acculturation) and marketing (consumer behavior) provided the theoretical framework for this investigation. A standardized questionnaire consisting of two recognized measures of global acculturation, and two research instruments constructed especially for this study, was used to obtain empirical data for exploring the relationships between acculturation and consumer behavior. The two measures of global acculturation were the Stick Figures Test and the Campisi Scale. Item analysis procedures were employed in constructing a reliable and valid instrument for measuring the degree of consumer acculturation. A second research instrument was developed to collect demographic data for comparing

and contrasting the sample respondents. The four research instruments were integrated into a single standardized questionnaire to facilitate field research among foreign and American students at the University of Florida.

Three statistical procedures were employed in analyzing and interpreting the data. Preliminary analysis of the data using stepwise multiple regression methods indicated that acculturation, consumer purchasing patterns, and demographic characteristics were systematically related. The findings of the preliminary analysis were valuable not only in testing the hypotheses, but also in suggesting the methods as well as the direction for further analysis.

A more extensive investigation of fundamental cultural and behavioral constructs was carried out during the second and third phases of the analysis of data. First, factor analytic techniques were employed to identify and define the underlying global and consumer acculturation dimensions. Then, a profile consisting of total score on the Stick Figures Test and factor scores on the Modified Campisi Scale and the Consumer Acculturation Test was obtained for each subject, along with a profile of demographic characteristics. In the third phase canonical correlation analysis was used to examine and assess the nature as well as the strength of the relationships between demographic variables and underlying global and/or consumer acculturation dimensions.

The final interpretation of the results of the study indicated that consumer behavior, as a subset of the multidimensional totality of human behavior, was clearly related to the acculturation process. The findings suggested that cultural background was the most important variable influencing the extent of acculturation. Other significant indices of the degree of acculturation were environmental background

(urban or rural), time in the U.S., age, religion, geographic mobility, and father's occupation. The results of the study also indicated that factor analytic techniques can be used to derive and define fundamental and meaningful dimensions of the multivariate domain of culturally determined consumer behavior. Furthermore, it appeared that statistical analyses relating behavioral constructs to other appropriate variables might be helpful in comprehending which cultural elements, i.e., purchasing patterns, marketing methods, are accepted most easily, and why.

## CHAPTER I INTRODUCTION

Since the advent of the marketing concept in the early 1950's, marketing academics and practitioners have been exhibiting an increasing interest in the consumer and his behavior. As a result, marketers have turned to the social sciences for concepts, theories, and methodologies to employ in studying consumer behavior.

In an effort to implement the marketing concept, marketing management has placed increased emphasis on research into the behavior of consumers. However, additional progress must be made in pragmatically carrying out the marketing concept, both in the United States as well as abroad. For example, marketing on an international or global scale generates situations in which American firms must develop an ever-increasing sensitivity to the needs, wants, desires and capabilities of the foreign consumer. The following quotation is indicative of the difficulties which U.S. companies may encounter in attempting to penetrate a foreign market where cultural qualities common in the U.S. are not present.

The local African government had been buying from Corporation X, an American firm, hand-operated dusters for use in distributing pesticides in the cotton fields. The dusters were loaned to individual Negro farmers. The duster supplied by the corporation was a finely-machined device requiring regular oiling and good care.

But the fact that this duster turned more easily than any other duster on the market was relatively unimportant to the native farmers. Furthermore, the requirement for careful oiling and care

simply meant that in a relatively short time the machines froze up and broke. The result? The local government went back to the older type French duster which was heavy, turned with difficulty, and gave a poorer distribution of dust, but which lasted longer in that it required less care and lubrication (Robinson, 1961).

This situation, faced by an American firm in Africa, is evidence that greater insight into the international consumer is essential. The African government was forced to resume purchasing the inferior French duster and this had definite cultural implications; the lack of high standards of personal discipline, responsibility, and thoroughness was an obstacle to educating the farmers regarding effective maintenance of equipment. Thus, to be successful, marketing men must be more astute in developing appropriate products, as well as strategies, for markets with which they are not familiar.

As American firms have rapidly expanded abroad and encountered new cultures, the need for additional knowledge about the cultural variable in consumer behavior has increased considerably. Greater understanding about the influence of cultural phenomena on consumer behavior would be valuable in developing marketing strategies to penetrate foreign markets, but it would also provide numerous cultural implications relevant to the domestic market. Engle, Kollat, and Blackwell (1968) express this view as follows:

Marketing strategy can be significantly influenced by a cross-cultural approach to the understanding of markets. Although as yet an underdeveloped field in its applications to marketing, cross-cultural analysis and other anthropological approaches offer much potential both in understanding consumer behavior in international markets and consumer behavior within important subcultures of the domestic market (Engle, Kollat, and Blackwell, 1968, p. 261).

One implication derived from a better comprehension of the culture of the United States is that it is the product of a number of sub-cultures. Hence, by properly delineating the similarities and differences of the various sub-cultures, marketing strategies can be

devised that are compatible with the specific characteristics of each sub-culture.

"Culture is a variable that pervades all stages of consumer decision-making and one under which many other variables may be subsumed" (Engle, Kollat, and Blackwell, 1968, p. 261). Marketing management must be able to come to grips with the complex consumer problems which are predicated on cultural phenomena. The capacity of marketing practitioners and scholars to identify, analyze, understand and predict consumer behavior can be facilitated through increased conceptualization and empirical research in the field of cultural anthropology.

#### Background of the Problem

During the past twenty years, marketing scholars and practitioners in the United States have turned to the social sciences in general, and to the behavioral sciences more specifically, in an effort to comprehend an increasingly complex nation of consumers. Since consumer behavior is often viewed as risk-taking (Bauer, 1960), it is essential that marketing theorists and practitioners endeavor to explore every available avenue to improve expertise and understanding of the consumer and his (or her) behavior. The social sciences represent one such avenue and marketing men increasingly have adopted relevant concepts, theories and methods from these areas. Most of the present adaptations of the social sciences by marketers are concentrated in the disciplines of economics, psychology and sociology, while anthropology is excluded generally from marketing thought and practice. Winick acknowledges this in his comment that, "Of the social sciences which deal with man and society, only economics, psychology, and sociology have been widely used in marketing. Economics is at the core of much of the content of marketing; psychology has yielded a variety of interviewing and projective testing procedures; sociology has contributed concepts like social class. Marketers

have been relatively slow in using anthropological insights and approaches, even though anthropology is also concerned with man and society" (Winick, 1961).

The relatively small amount of research conducted by marketing people in the field of cultural anthropology does not necessarily mean, however, that an anthropological approach cannot be meaningfully applied in the study of consumer behavior. On the contrary, as Sheldon maintains, "It goes without saying that culture affects our behavior as consumers. The cultural anthropologist is in a position, therefore, to give us insights into consumer behavior" (Sheldon, 1958). Since anthropology does represent a meaningful approach to the study of consumer behavior and, because it has been employed very little, the direction in which this dissertation proceeds will be into the field of cultural anthropology as it relates to marketing, with predominant emphasis placed on the acculturation process.

J. S. Duesenberry was one of the earliest writers to focus attention on the role culture plays for the individual in his social environment. In his book, Income, Saving and the Theory of Consumer Behavior, he postulated that,

In addition to knowing that certain goods are purchased to maintain physical existence and comfort it is also known that certain activities are an essential part of the culture, . . . in every case the kinds of activities in which people engage are culturally determined and constitute only a small subset of the possible actions in which people might participate (Duesenberry, 1949, p. 53).

Support for Duesenberry's postulate is evidenced by Tucker (1964) in his discussion of the individual's purchasing behavior. He pointed out that often what one assumes to be human nature is in fact the influence of culture. He said:

Culture is, naturally, a major influence in economic decisions, since it not only forms the broad base of the value system but also provides a misleading account of human nature. When someone makes an economic decision, he often bases it

on his concept of human nature. And often he makes the mistake of thinking, "This is what people are like," rather than "This is what people are like now in this culture" (Tucker, 1964, p. 23).

In recent years a number of authors have exhibited an increasing interest in the relationships which exist between culture, sub-cultures, and consumer (or buyer) behavior. Wassan and McCaughey (1968, p. 145), in their discussion of sub-cultural market segmentation, assert that purchasing patterns can be clearly identified for regional sub-cultures. For example, rural sub-cultures tend to place less value on the quality of shelter and more emphasis on home furnishings and equipment, clothing and personal care. Furthermore, both rural nonfarm and farm households place more emphasis on the amount of food and less on variety. In contrast, urban families tend to eat a greater variety of types of meat, and to use more of their fruits and vegetables in processed form and less in their fresh state, than do rural families.

Distinctive consumption patterns have been reported for ethnic sub-cultures as well. Bauer (1966) found that Negroes save more money than whites of equivalent incomes, have more careful purchasing habits, and take the purchase of products more seriously than equivalent whites. Furthermore, Negro women are more likely to shop with other women than with their husbands, in contrast to white patterns where women tend to shop with their husbands. Davis (1959, p. 6) states that Negroes appear to be more brand loyal than equivalent whites, and Bullack (1959, 1961) points out that Negroes tend to purchase more luxury items than white consumers of the same income levels.

Marketing people have also examined the purchasing patterns of sub-cultures delineated on the basis of age and social class. McNeal (1969) has identified cultural traits which influence the buying behavior of a child sub-culture, while Wells and Gubar (1966) and Smith (1961) have examined merchandising techniques appropriate

for the teen-age sub-culture. Tote (1970) has compared the buying behavior of younger, middle-aged, and older housewives, each of which constitute a separate sub-culture. Moyer (1957) has explored how the unique needs and desires of the growing senior citizens sub-culture may influence their purchasing behavior.

Although studies such as the preceding do provide some insight into the cultural aspects of consumer behavior, their usefulness is limited because an intensive rather than a comparative approach is employed. In other words, such an approach enables one to describe the different consumer behavior patterns characteristic of each culture, or sub-culture, but comprehension of the relationships which exist between a culture and the purchasing behavior of its members is not possible.

Given that purchasing patterns (i.e., consumer behavior) are related in general to an individual's culture, and more specifically to his sub-culture, and with the realization that there are meaningful cultural differences, be they predicated on ethnic, geographical, social class or other environmental factors which differentiate people's patterns of behavior, then a cultural anthropological concept relevant to the present research can be considered. The term "acculturation," as used in the behavioral sciences, refers to "the process of learning a culture different from the one in which a person was originally raised" (Berelson and Steiner, 1964, p. 646). Implicit in this concept is the overlaying of a new and different culture on the individual's heritage culture. If, as Duesenberry (1949), Tucker (1964), and others point out, the buying behavior of an individual is influenced by his cultural heritage, then what is the impact of acculturation on an individual's purchasing patterns? One would anticipate that the purchasing patterns of a less acculturated individual would more closely resemble those which are characteristic of a member of his heritage culture,

whereas the purchasing patterns of a more acculturated individual would display a greater similarity to those which are characteristic of a member of the new, or dominant, host culture.

#### Statement of Purpose

Research into the behavior of consumers has uncovered evidence relevant to this study in that it suggests that persons from a foreign culture do not behave as we do in the marketplace; that part of the acculturation process involves adapting and learning new modes of behavior in the market; and that this change in the individual includes new attitudes, values, and habits which are closely interlaced with an integrated configuration of other non-marketing and non-consumer type mental constructs. However, explicit techniques of studying consumer behavior within a cultural context are not articulated.

The purpose of this exploratory research is to identify and examine, in a dynamic setting, the purchasing patterns of a group of foreign students at the University of Florida; to derive implications and draw inferences, and to reach conclusions regarding relationships which may exist between culture, acculturation, and consumer behavior.

#### Significance of the Research

Winick, writing in the Journal of Marketing, asserts that "There are at least three kinds of situations in which the knowledge of the anthropologist has been employed in marketing: specific knowledge; awareness of themes of a culture; (and) sensitivity to taboos" (Winick, 1961). Winick proceeds to outline briefly the use of anthropology in marketing research studies and the resulting contributions. Despite these efforts

to apply anthropological concepts and methodologies in marketing, little socio-anthropological theory is available to marketing people to facilitate additional scientific approaches to consumer behavior. This exploratory study is an attempt to partially fill this empirical vacuum by utilizing the acculturation process as a theoretical tool of analysis to study consumer behavior.

The rapid expansion of interest and research in consumer behavior has inspired several attempts to formulate general theoretical frameworks which integrate the behavioral sciences and buying behavior. Among the most notable are those by Nicasia (1966), Engle, Kollat, and Blackwell (1968), and Howard and Sheth (1969). Although reference is made in all of the preceding models regarding the importance of the cultural variable, none treat the concept in detail due to the general nature of their approach.

Summarily, the present study attempts to integrate concepts from two disciplines, cultural anthropology and marketing, into a research method for the explanation and description of an empirical situation. This study also attempts to provide additional theory and research designs for future behavioral investigations of marketing problems. Finally, by undertaking our study in a dynamic setting where the foreigners are becoming acculturated, we can better identify and highlight what aspects of our own behavior, as well as that of others (i.e., foreigners), are cultural in nature.

#### Relevance of the Literature

A search of the literature indicated that marketing, as a field of study, is beginning to recognize the importance of culture's influence on consumer behavior and decision-making. However, the relationships which exist between acculturation and purchasing patterns have not been treated. The following section reviews the

literature relative to an understanding of these relationships. Relevant aspects of culture, cultural change, acculturation, and consumer behavior are considered.

### Culture

Among the many complex factors which affect consumer attitudes and behavior is that of culture. Knowledge and understanding of the intricacies of the cultural dimension are thus important to the marketer in developing successful strategies.

What is culture? Definitions are numerous. Some anthropologists think of culture as communicable knowledge, while others refer to it as the sum of historical achievements produced by man's social life. Kroeber and Kluckhohn (1952) list over one hundred and sixty formal definitions of the term. Most concepts of culture include three keynotes: "First, that culture is transmitted, it constitutes a heritage or a social tradition; secondly, that it is learned, it is not a manifestation . . . of man's genetic constitution; and third, that it is shared" (Parsons, 1951, p. 15).

Culture is the "distinctive way of life of a group of people, their complete design for living" (Kluckhohn, 1951). The manner in which man consumes, the priority of the needs and wants he attempts to satisfy, and the manner in which he satisfies them are manifestations of his culture which, among other things, temper, mold, and dictate his style of living. Kluckhohn points out the influence of culture upon behavior when he states that "culture . . . regulates our lives at every turn. From the moment we are born until we die there is constant conscious or unconscious pressure upon us to follow certain types of behavior that other men have created for us" (Kluckhahn, 1962). Culture is "the man-made part of man's environment -- the sum total of man's knowledge, beliefs, art, morals, laws, customs, and any other capabilities and habits acquired by man as a member of society" (Herskovits, 1964, p. 17).

Culture is applicable to all human behavior. However, we do not see culture but observe manifestations of it; culture is an abstraction from behavior. Thus, it is important to distinguish between the explicit and the implicit culture. The explicit culture consists of directly observable regularities in the verbal and nonverbal behavior of the typical or modal member of the society. The implicit culture consists of concepts (e.g., norms, beliefs, values, etc.) which are used to explain the observed regularities of behavior or, in effect, the explicit culture (Berelson and Steiner, 1964, p. 644). The explicit culture is obvious to everyone, whereas the implicit is known only to those who seek it.

Within the complex, heterogeneous culture of a society, group or nation, a number of sub-cultures may be identified. These sub-cultures are predicated upon recognition of distinguishable features, such as language, racial origin, age, or social class, which typically lead to unique patterns of behavior and ways of living. Hence, a sub-culture refers to "a distinguishable entity within a larger culture or to the clustered cultural traits shared by certain entities in differing cultures" (Wadia, 1965).

To develop successful marketing strategies, a complex environment must be considered. An understanding of culture can help marketing men in their efforts to cope with the environment. So many aspects of marketing are affected by culture that, as Wadia posits, "Marketing is culture bound" (Wadia, 1965). Indeed, for the field of marketing, especially in its international aspects, the impact of culture appears endless. Credence is given to this observation by Hess and Cateora, who assert that "a complete and thorough appreciation of the dimensions of culture may well be the single most important gain . . . in the preparation of marketing plans and strategies" (Hess and Cateora, 1966, pp. 105-6).

### Cultural Change

A fundamental characteristic of human culture is that it is dynamic. People's habits, tastes, styles, behavior, and values are not constant but are continually changing. While culture may appear to be static, the component parts are in a constant state of flux. Building upon the customs and traditions of the society, new modes of behavior, better solutions to problems, improved tools and weapons, and foods are incorporated into the existing culture. Once these adopted patterns become common place, they are passed on as cultural heritage.

The degree of resistance to cultural change tends to vary; in some situations new elements are accepted completely and rapidly, and in others resistance is so strong that acceptance is never forthcoming or, at least, is very slow. Cultural change is particularly characteristic of modern society, where such things as the industrial revolution, automation, and communications developments, have caused dramatic cultural shifts. Just as the industrial revolution led to greater urban concentrations, different working environments, and diverse consumption patterns, so now automation, communications, and numerous other developments are having their effects (Heilbroner, 1962, p. 44).

The norm of change, however, is not prevalent everywhere; some areas of the world, as well as some sub-cultures, still favor traditional norms. As Inkeles has noted, industrialized countries are likely to be more receptive to changes while non-industrialized countries have a great tendency to resist changes (Inkeles, 1960). In addition, Bass (1962) found that people with rural-oriented values are more resistant to change than people with urban-oriented values, and Rogers (1962) notes that rural sociologists have demonstrated that the rate of acceptance of new farm technology

depends on whether the norms of the community are modern or traditional.

Summarily, cultural change is the process by which a society, or group, improves or revises its adjustment to its environment, through questioning traditional solutions and establishing new ways of living. This process may evolve either from within a culture, or sub-culture, or between cultures. When it occurs between cultures, it is usually referred to as cultural borrowing. The present research is concerned with an instance of culture borrowing in which a minority sub-culture (foreign students in the U.S.) adjusts its heritage purchasing patterns to a new cultural environment.

### Acculturation

To a great extent, consumer decision-making is influenced by cultural inputs received over time from the individual's environment. Thus in attempting to understand tastes, product preferences, and purchasing patterns, it is necessary to understand the culture which the individual has absorbed. The process of learning one's first culture is called enculturation, or socialization; when a person learns a new culture other than the one in which he was raised, the process is referred to as acculturation.

For the purpose of this study, acculturation refers to the process of learning a culture different from the one in which a person was originally raised. Implicit in this concept is the overlaying of a new and different culture on the individual's heritage culture. More simply, it may be described as the process of becoming more American-like, as manifested in one's behavior as a consumer.

The subcommittee on Acculturation of the Social Science Research Council has defined acculturation as: ". . . (T)hose phenomena which result when groups of

individuals having different cultures come into first hand contact, with subsequent changes in the original patterns of either or both groups" (Redfield, Linton, and Herskovits, 1936). Of particular importance is that acculturation refers specifically to changes in culture, i.e., in behavior and knowledge. Furthermore, the acculturation process is facilitated by interaction among cultures. The greater the contact among cultures, the more the diffusion of common traits and the more alike the cultures tend to become. This is not to say they become exactly alike -- only more alike (Berelson and Steiner, 1964, p. 653).

The term acculturation does not imply that cultures in contact are to be distinguished as "higher" or "more advanced," or as having a greater "content of civilization," or that they differ in any hierarchical manner. Rather, evidence shows that the transmission of culture, a process of cultural change of which acculturation is but one expression, occurs when any two peoples are in historic contact. Whatever the nature of the contact, mutual borrowing and subsequent revision of cultural elements seem to result (Herskovits, 1964, p. 170).

Acculturation is a process, not an isolated event. Just as cultures are in a constant state of flux, so is acculturation a dynamic process. Acculturation, however, does not necessarily mean the adaptation of one culture to another; the process can be either uni-directional or bi-directional, but is generally the latter. Even though one culture may be stronger than another, there are counterbalancing powers (i.e., customs, norms, and values) in the cultures which result in degrees of static conditions prevailing within the cultures.

Weinstock in his studies of the acculturation process, emphasized that for research purposes the immigrant should be perceived of as in the process of change, while the

dominant, (or host) culture is perceived as static (Weinstock, 1964). Acculturation, then, may be considered as a process whereby an individual moves along a theoretical continuum, with the extremes being defined as "completely unacculturated" and "completely acculturated." Viewing the process in this manner enables one to assess both the degree and rate of acculturation.

In this study, attention is focused on the movement of foreign students along a theoretical acculturation continuum, from the unacculturated extreme where heritage purchasing patterns prevail, toward the opposite acculturated extreme where the purchasing patterns of the host culture have been adapted.

#### Consumer Behavior

Like many of the previous terms herein discussed, consumer behavior is often confused and misinterpreted, and is seldom sharply defined. Instead, efforts are made to present distinctions of various types, such as intermediate and final consumers and the reasons why consumer behavior is studied. The predominant view of consumer behavior, until recently, has been concerned with the economic decision-making of the consumer in the market for goods and services. For example, demographic studies have been conducted to investigate the consumer in terms of geographic location, age, income, size of family, education, occupation, and similar data. Macro-economic approaches, emphasizing national product and income, transfer payment, the consumption function, and related phenomena, have also provided valuable insights. Conceding that economic decision-making is an important facet of consumer behavior, it must be recognized, nevertheless, that consumer behavior requires a more extensive interpretation.

In the words of Duesenberry,

A real understanding of . . . consumer behavior must begin with a full recognition of the social character of consumption patterns. We know, of course, that certain goods are purchased to maintain physical existence or physical comfort. We also know that certain activities are an essential part of our culture, or, at least, of parts of it. Others are required to maintain social status. Still others are undertaken merely for pleasure. But in every case the kinds of activities in which people engage are culturally determined and constitute only a small subset of the possible actions in which people might participate. Nearly all purchases of goods are made, ostensibly at least, either to provide physical comfort or to implement the activities which make up the life of our culture (Duesenberry, 1949, pp. 19-20).

Although few individuals are likely to adhere to identical tendencies or characteristics in their consumer behavior, there appear to be various economic, social, and cultural considerations which tend to mold the potentially infinite variety of purchase and consumption patterns.

Glock and Nicosia, purporting to use a sociological approach to consumption behavior, define consumer behavior in terms of "the decision processes of the individual consumer or consuming unit, such as the family. It includes all the efforts to describe and explain one or more acts of choice either at a given time or over a period of time. It concerns the consumer's investment of money and personal labor in goods, services, and leisure pursuits; or his decisions with respect to saving and assets; or his 'purchase' of ideas" (Glock and Nicosia, 1964).

The interpretation of consumer behavior inherent in this study will encompass facets of human behavior other than solely rational economic choice. Thus, consumer behavior will be defined more in a behavioral science context than a purely economic framework. Furthermore, although it would be meaningful to attempt to encompass the full spectrum of behavior of the consumer, i.e., anthropological, psychological, sociological, and economic, in this research, the predominant emphasis will be on the

phenomenon of cultural anthropological aspects of consumer behavior. In effect, this study stresses variables and parameters of culture and acculturation as they relate to consumer behavior and as manifested specifically in purchasing patterns.

The rationale underlying this interpretation of consumer behavior is that behavior is initially and continually a function of man's culture. Although there are changing conditions within which man consumes, his cultural involvement is present and felt at all times, from the time of birth, until death.

For this study, the definition of consumer behavior involves those covert and overt actions, as affected primarily by cultural influences, but also by individual and social stimuli, that people undertake over a period of time in an effort to obtain the want-satisfying properties inherent in goods and services.

Purchasing Patterns. Purchasing patterns represent complex systems of intricate, interrelated habits, customs, and values of various cultures. Whereas historical and anthropological studies reveal the origins of these customs, habits and values, the basic factors upon which these phenomena are founded tend to be socio-economic in nature. Resource endowment of the nation, location and climate, international trade relations, biological composition of the inhabitants, national character and other facets historically have been parameters upon which purchasing patterns have been predicated. Rather than undertake an investigation of the origins of purchasing patterns, this study will concentrate on the existence of patterns and the influence of the acculturation process.

The purpose of the present study is to show the relationships between purchasing patterns and the acculturation process. As used here, purchasing patterns are considered a subset of consumer behavior and refer to the actions of individuals directly involved

in purchasing goods and services and the decision processes that determine these actions.

### Related Research

Reviewing the literature revealed three studies closely related to the present research. These studies provide insight into both the research methodology and the relationships expected between the acculturation process and consumer behavior.

Fong's study of the assimilation of Chinese in America. Fong (1965) studied the assimilation orientation and social perception of Chinese college students, all living in America. Each subject received three forms, consisting of a personal data sheet, an Assimilation-Orientation Inventory, and a Stick Figures Test. These forms were filled out anonymously and returned by mail; seventy-five percent of the questionnaires were returned.

The sociological indices of progressive removal included in Fong's Assimilation-Orientation Inventory and the Stick Figures Test are the following: generation level, parents' citizenship status, area of residence, and ethnicity of one's intimate friends. Using the Kruskal-Wallis H test, Fong found significant results for all of these dimensions.

The psychometric findings of Fong's research supported his thesis that as Chinese become progressively removed from their ancestral culture and in greater contact with the dominant American culture, they show a concurrent increase in their assimilation orientation and in their internalization of American perceptual norms.

Weinstock's study of the acculturation process of Hungarian refugees. Weinstock (1964) studied the factors that retarded or accelerated the rate of acculturation of Hungarian immigrants. Fifty-three respondents were interviewed and given a number of personality measures. Two measures of acculturation were used; the Campisi Scale

ond on Information Scale developed by the author. The two measures were combined to form a single index of acculturation.

The conclusions reached in Weinstock's study, which are pertinent to this research, were that Hungarian refugees who cling to traditional foods and methods are less acculturated than their contemporaries who have adopted foods and methods of the dominant culture; that refugees who have close friendships among Americans acculturate faster; that no significant difference existed between males and females with regard to acculturation; and that the amount of time spent in the United States does not significantly influence the degree of acculturation (only one year elapsed between the time of interview of the first and the last respondent). He also noted the existence of a strong positive relationship between acculturation, higher social status, and social mobility.

Hodges' study of acculturation and product meaning. Hodges (1969) conducted personal interviews with two groups of Mexican-American housewives living in San Antonio, Texas. Subjects were selected so that each group represented a different socio-economic stratum. One hundred interviews were completed, equally divided among the two groups.

Two research instruments were used: a family data sheet and the Q-sort instrument. The family data sheet provided a data base for comparing and contrasting the two subject groups; a thirty-eight-item Q-sort instrument was used to obtain product meaning profiles. The low socio-economic subject group performed the Q-sort twice, once for self and once for a description of a low-income Anglo-American housewife. The medium socio-economic subjects performed three Q-sorts, one for self and one for a low- and one for a medium-income Anglo-American housewife.

The analysis of the data indicated that the subject groups were able to agree on what products meant, both for self and for the described Anglo housewives. However, differences existed between: (1) the self product perceptions of the low-occultured subjects and the self product perceptions of the medium-occultured subjects; and (2) the self product perceptions of the low-occultured subjects and the low-occultured subjects' perceptions of the way a low-income Anglo housewife perceived products. No differences were found between the self product perceptions of the medium-occultured subjects and their perceptions of product meaning for either the low- or the medium-income Anglo housewife. In short, the low-occultured subjects perceived product meanings differently from the dominant culture, whereas, the medium-occultured subject group perceived the meanings of the product set like members of the dominant culture.

#### Theoretical Framework

The material reviewed in the previous sections provides little insight into the relationships which might be found in a study of consumer behavior, as affected by the occulturation process. However, it does provide sufficient evidence to suggest certain relationships which might be tested in the present investigation.

Anthropologists have long recognized that when individuals having different cultures come into contact, the result is a process of mutual adoption and subsequent revision of cultural elements. More recently, a number of marketing scholars have noted the influence of culture on our behavior as consumers, while others have examined inter-cultural differences in consumer behavior. Conceding the broad role that culture plays in determining consumer behavior, and recognizing that cultural elements do change when two diverse cultures come into contact, affords a basis for examination of

possible relationships between culture, acculturation, and consumer behavior.

A global acculturation test<sup>1</sup> administered to a sample composed of subjects having diverse cultural backgrounds would be expected to show differences in their degree of acculturation. At the same time, a consumer acculturation test administered to the identical sample would be expected to show differences in the extent of their consumer acculturation. Thus, we would anticipate that less acculturated persons, as demonstrated by the global acculturation test and the consumer acculturation test, would exhibit behavior as consumers which is somewhat influenced by their cultural heritage; whereas, more acculturated persons would be expected to exhibit consumer behavior more like members of the dominant, American culture.

To this end, the following questions are considered in the present research:

- (1) Does the acculturation process have any effect on consumer purchasing patterns?
- (2) Does the acculturation process for persons from progressive countries, where Western influence has made deep inroads, differ significantly from the acculturation process for persons from less progressive, traditionally oriented countries?
- (3) If the acculturation process for persons from progressive countries does tend to differ significantly from the acculturation process for persons from less progressive countries, then do these same people also tend to exhibit significantly different patterns in their behavior as consumers?
- (4) To what extent can demographic variables such as age, sex, marital status, and time, be used as indices of differences in the acculturation process in general, and the consumer acculturation process in specific?

<sup>1</sup> For this study, global acculturation is a comprehensive term, referring to overall acculturation in the individual's total style of living, i.e., acculturation with regard to all types of human behavior, consumer or otherwise.

### Research Hypotheses

Four hypotheses are treated in this investigation. They are stated below in null form.

#### Hypothesis I

Consumer behavior is not affected significantly by the acculturation process.

#### Hypothesis II

The acculturation process for persons from progressive countries does not differ significantly from the acculturation process for persons from less progressive countries.

#### Hypothesis III

The purchasing patterns (consumer behavior) of persons from progressive countries do not differ significantly from the purchasing patterns of persons from less progressive countries.

#### Hypothesis IV

Demographic variables such as age, sex, marital status, and time, cannot be used as indicators of differences in the acculturation process in general, or of the consumer acculturation process in specific.

## CHAPTER II

### RESEARCH METHODOLOGY

Testing the hypotheses required measurement of the relationship between the degree of acculturation and purchasing patterns. To accomplish this, the author first selected two recognized measures of global acculturation, which had been used in anthropology and social psychology, and modified them to fit the objectives of this study. Then, two other research instruments were constructed especially for this study. One of the research instruments was designed to measure consumer acculturation, the other was developed to obtain demographic data about the respondents. The four research instruments were integrated into a single, standardized questionnaire, to facilitate speed and accuracy in data collection, and to ensure that information obtained in the field-work would be comparable. After pre-testing the questionnaire under field conditions, it was administered to a sample of both foreign and native students at the University of Florida.

#### The Questionnaire

The fundamental objective of the questionnaire was to obtain the data necessary for testing the research hypotheses. Construction of the questionnaire involved five principal tasks: (1) selection and preparation of the global acculturation measures, (2) construction of the consumer acculturation test, (3) construction of the demographic data sheet, (4) integration of the four research instruments into a single,

standardized questionnaire, and (5) pre-testing the questionnaire under field conditions, and making the desired improvements.

### Globol Acculturation Tests

Two recognized measures of global acculturation were selected from the literature -- the Stick Figures Test (Sorbin and Hordyck, 1955) and the Campisi Scale (Campisi, 1947). Both measures were critically examined to determine their suitability for this study. The complete Stick Figures Test was retained, but several modifications were necessary before the Campisi Scale could be used.

Stick Figures Test. The Stick Figures Test (SFT) was selected as a recognition test of the expressive modes of the American culture. The SFT consists of a series of forty-three simple line drawings of human-like stick figures, drawn to represent a wide range of expressive and attitudinal states.<sup>1</sup> The figures were constructed in a manner that offers no cues for interpretation other than gestures or posture.

For each figure in the SFT, the respondent is instructed to select one of five objectives which best describes his judgement of the emotion or attitude being expressed. A blank space is also provided for each stick figure, to be filled in by the subject when none of the objectives adequately describes his impressions.<sup>2</sup>

Fong (1965) explored the possibility that a low score on the SFT was a result of the respondent's limited English vocabulary, and not of low familiarity with Western expressive norms. His results indicated that scores on the SFT were not confounded by a vocabulary factor.

<sup>1</sup> Appendix B contains several examples of items from the Stick Figures Test.

<sup>2</sup> A Stick Figures Test answer sheet giving the objectives corresponding to each of the stick figures is shown in Appendix B.

Published validity and reliability figures were examined when considering the appropriateness of the SFT for this study. Sarbin and Hardyck (1955) empirically validated the SFT as a measure of conformance in perceptual responses, against two external criteria -- the California Psychological Inventory and the Minnesota Multiphasic Personality Inventory. A validity coefficient of .81 (Spearman rho) was obtained when scores on the SFT were correlated with those on the California Psychological Inventory. When the SFT was correlated (Pearson product-moment) with the Minnesota Multiphasic Personality Inventory, a validity coefficient of .51 was obtained. In addition, Fong (1965) found that Chinese college students who had been in the United States longer tended to score higher on the SFT than did those who had been in the U.S. a shorter length of time.

The reliability of the SFT was measured by Sarbin and Hardyck (1955) using split-half procedures. A reliability coefficient of .50 was obtained, but they suggested that refinement of the test by item analysis would doubtless increase its reliability.

Campisi Scale. The Campisi Scale (Campisi, 1947) is a self-descriptive inventory which attempts to measure two things: (1) the degree to which a person has conformed to certain aspects of American culture, and (2) the degree to which that same individual has retained certain aspects of his own, or his ancestor's, non-American way of life. It is not concerned with measuring the component dimensions of the American, or the ethnic culture, but simply the degree of conformity to the former.

The original Campisi Scale consisted of ten separate sections, each of which was designed to gather information on a different aspect of acculturation. Supplementary demographic data was also collected to facilitate cross-classifications. The areas covered by the Scale were: recreation and entertainment, customs and usages, social

interaction, place of residence, language usage, foods and food seasonings, sentiments and feelings, nationality background of relatives, friends, and acquaintances, hopes, wishes and aspirations, and basic cultural traits. Five of the sections contained multiple-choice questions designed to obtain objective measurements regarding the above areas, and the other five included questions on which the respondent was required to make a subjective judgement for himself, using a five-point Likert-type scale.

Campisi assessed the validity of the Scale by using the method of contrasted groups. Significant differences (critical ratio statistic) were observed between the mean scores of the "old line" American sample, and those from the sample of recent immigrants (Campisi, 1947, p. 194). Hence, the validity of the instrument was established by demonstrating its ability to differentiate between two groups -- "old line" Americans who supposedly were acculturated, and recent immigrants who were not as acculturated.

An estimate of the reliability of the Scale was also computed by Campisi. Using the split-halves method, a reliability coefficient of .98 was obtained (Campisi, 1947, p. 192).

Campisi's primary purpose for constructing the Scale was to develop a quantitative instrument that would provide reliable and valid measurements of the extent of acculturation among immigrants and ethnic minority groups. The questions considered for use in the Campisi Scale were formulated, empirically tested, and then either eliminated, or modified on the basis of their suitability for use with groups of immigrants. In contrast, the present study was concerned with developing an instrument to be used with a group of foreign students. For this reason, much of the content of the Campisi Scale was not appropriate for our purposes.

Several modifications were necessary before the Campisi Scale could be used. Only two sections of the original Scale were retained; one was a measure of how frequently certain foods and food seasonings are eaten, and the other was a measure of the individual's sentiments and feelings toward a variety of factors, such as entertainment, social interaction, and place of residence. Twenty-nine of the original thirty-six questions in these two sections were included in the modified Scale. In addition, the format of the instrument was changed to facilitate administration with the other scales. The five-point Likert-type scale was retained, but the points were renumbered for the subject's convenience and for coding.<sup>3</sup>

#### Consumer Acculturation Test

From the moment work was begun on developing the consumer acculturation test, it was realized that constructing an instrument which would measure the complex totality of consumer acculturation would be clearly impossible. The taxonomic and methodological constraints preclude a precise statement, not only of the cultural aspects of the American consumer, but of the cultural aspects of the various groups of foreign students as well. In fact, neither anthropologists nor marketers are able to agree on an explicit description of a typical American consumer. Since a detailed investigation and analysis of the over-all impact of acculturation on consumer behavior was beyond the scope of this study, it was decided to limit the measurement of consumer acculturation to two important facets: (1) those factors related to marketing institutions and practices, and (2) those factors related to product attributes.

The function of the Consumer Acculturation Test (CAT) was to measure the

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<sup>3</sup> The Modified Campisi Scale (MCS) is shown in Appendix B.

attitudes of the sample subjects toward typical American products and marketing practices, i.e., to measure the extent of consumer acculturation. Development of the CAT involved three principal phases: (1) construction and testing of the preliminary forms of the CAT, (2) revision of the research instrument, and (3) construction of the final standardized form of the CAT.

Construction of the preliminary CAT. The first step in constructing the preliminary form of the CAT was to identify and evaluate a number of acculturation factors, i.e., factors that could be used as indicators of the degree of consumer acculturation. Two categories of acculturation factors were examined: institutional factors and product attribute factors.

The acculturation factors were selected from a search of the literature, as well as through a series of intensive interviews. The literature search was conducted first to gain familiarity with the various acculturation factors. A large number of books and periodicals were reviewed, and each acculturation factor and its source was listed. In addition, the rationale underlying each of the factors was briefly summarized so that it could be referred to later in designing the items for the CAT.

A sample of 25 foreign students from 10 countries was interviewed to supplement the information found in the literature search. Interviews were also conducted with several anthropologists, sociologists, economists, and marketing scholars.

Fifty-two separate acculturation factors were identified.<sup>4</sup> An examination of these factors showed that many of them were related, and thus logically could be combined into a number of composite acculturation factors. Five institutional factors,

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<sup>4</sup> An outline of these acculturation factors is given in Appendix A.

five product attribute factors, and three factors which represented both institutional and product attribute factors, were distilled from the original list of acculturation factors.<sup>5</sup>

Using the composite acculturation factors as a guide, approximately one hundred and seventy-five items were composed, and then critically reviewed by a small sample of foreign students. In this way the apparent ambiguities, errors and obviously weak items were eliminated quickly without recourse to empirical analysis. At the same time, several changes were made to improve the clarity and appropriateness of other items.

Test items were carefully edited and selected based on their relevance and significance to the acculturation process and consumer purchasing patterns. A total of one hundred and forty-nine statements was included in the preliminary form of the CAT.<sup>6</sup> These items were about equally divided among each of the thirteen acculturation factors to ensure the validity of the instrument. Both positive and negative statements were included, and in some instances, two different wordings of the same statement were designed to examine what effect a particular wording had on the results.

Two different rating scales were constructed to measure the respondent's attitudes on the preliminary form of the CAT. Both were five-point, Likert-type scales, but each employed different descriptive adjectives. The first 129 statements were evaluated using almost always, often, occasionally, rarely, and almost never, whereas the last 20 items were evaluated using strongly agree, agree, no preference, disagree, and strongly disagree.

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<sup>5</sup> These composite factors are listed in Appendix A.

<sup>6</sup> A copy of the preliminary form of the CAT is included in Appendix A.

The preliminary form of the CAT was administered to a sample of both American and foreign students at the University of Florida. The American sample consisted of 43 undergraduates, who were asked to indicate how they felt about the statements by placing a check mark under the appropriate descriptive adjective. A small sample of foreign students was asked to make comments and criticisms about the preliminary form of the CAT.

Revision of the CAT. Using the pre-test data, the means and standard deviations were calculated for each of the items, and then two criteria were set up as a basis for eliminating the poorly designed items. Only items with a standard deviation of  $\leq 1.20$ , and a mean of  $\leq 2.5$ , or  $\geq 3.5$ , were retained. Thus, only items which were moderately positive or moderately negative, and had a small standard deviation, were included in the revised CAT.

One exception to the above procedure should be noted. Six out of a total of seven items describing one of the acculturation factors (credit) were eliminated by these criteria. It was felt that several items for each acculturation factor should be included to preserve the validity of the instrument. For this reason, three new items were written for the credit factor. The revised form of the CAT contained 86 items.

In response to comments from sample subjects, several changes were made in the revised CAT. The format of the questionnaire was modified to make it easier for the subjects to follow the sequence of the statements. Items were rearranged so that consecutive statements did not refer to the same acculturation factor, and definitions were included with those items that contained marketing-related concepts. A new, and more sensitive, rating scale was also constructed to measure the respondent's attitudes. The new scale was a seven-point, horizontal linear rating scale, with the extremes

labeled agree and disagree. The intermediate steps were numbered for the subjects convenience and for coding purposes. Finally, a more complete set of instructions was written for the revised CAT, and an example was given to show how a person might mark the new rating scale.<sup>7</sup>

The revised form of the CAT was reproduced and administered to a sample of both American and foreign students. The American sample contained 65 subjects, approximately one third being graduate students. Twenty-one subjects were included in the sample of foreign students. The sample used in this phase of test construction was chosen so that it would be similar to the one studied with the final instrument. Few foreign students were used, however, so that most of the limited population available could be included in the final sample. The test conditions in this phase were similar to those in which the final instrument was used.

Construction of the final CAT. Both the validity and the reliability of any test depend ultimately on the characteristics of its items. High reliability and validity can be built into a test in advance through item analysis. In short, item analysis enables the researcher to select the most discriminating items and, at the same time, to increase the validity and reliability of the test (Anastasi, 1968, p. 158).

Data obtained in the pre-test of the revised CAT, on the American sample, were used to perform item analysis. Although several procedures can be employed in item analysis, the index of discrimination was chosen because it was particularly suitable for use with small groups. As Anastasi notes, an index of discrimination can be interpreted independently of the size of the particular sample in which it was obtained and, despite its simplicity, it has been shown to agree quite closely with other more

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<sup>7</sup> A copy of the revised CAT is found in Appendix A.

elaborate measures (Anastasi, 1968, p. 172).

In calculating the index of discrimination, the first step involved tabulating a frequency distribution of the responses on each of the test items, for use in devising a scoring procedure. After examining the frequency distributions, a decision was made to accept a modal response, as well as a response which was within one point on either side of the modal response, as correct; all other answers were to be considered incorrect. For example, if the modal response on an item was five, then a four, a five, or a six was scored as correct, and a one, two, three, or seven was scored as incorrect.

A total test score was calculated for each subject, and the sample was divided into three groups: highest third, middle third, and lower third. The numbers of persons passing each item in the upper and lower criterion groups were expressed as proportions, and the difference between these two proportions was calculated to obtain an index of discrimination for each of the 86 items on the revised form of the CAT.

To maintain the validity of the final form of the CAT, an approximately equal number of items was selected from each of the 13 composite acculturation factors. Those items with the highest index of discrimination were chosen from each of the composite acculturation factors.<sup>8</sup>

When summative scales are used in constructing tests, it usually requires a minimum of 20 statements to obtain an acceptable reliability coefficient (Nunnally, 1967, p. 533). Thirty-one items, 15 positive and 16 negative, were chosen on a trial basis. Then, Kuder-Richardson formula 20 (coefficient alpha) was used to compute a preliminary estimate of reliability. A reliability coefficient of .778 was obtained for the

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<sup>8</sup> A table showing the index of discrimination for each item is contained in Appendix A.

31 items.

Although a reliability coefficient of this size would have been acceptable, a somewhat higher level of reliability was desired. The Spearman-Brown formula was used to estimate the number of additional items that would have to be included in the final form of the CAT to obtain a reliability coefficient above .80 (Anastasi, 1968, p. 83). The result indicated that a reliability coefficient of .80 could be achieved by adding five more items to the 31 already selected. This level of reliability for the final form of the CAT was considered quite acceptable, particularly in view of the fact that internal-consistency formulas tend to underestimate the reliability of a test (Guilford, 1965, p. 461). Three more positive statements, and two more negative ones, were chosen in the same manner as the first 31 items. The final form of the CAT consisted of 36 items.<sup>9</sup>

An undergraduate sociology class was solicited for use in finding the test-retest reliability of the final instrument. Two weeks elapsed between the first and second administrations of the test. The scores obtained by the same 30 respondents, on the two administrations of the final form of the CAT, were correlated and a test-retest reliability coefficient of .757 was obtained.

#### Demographic Data Sheet

The second research instrument designed especially for this study was the demographic data sheet (DDS). Just as the exploratory interviews facilitated the construction of the CAT, they also provided information valuable in developing the DDS. In addition, framing of the specific questions, and developing the final format, was

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<sup>9</sup> A copy of the final CAT is contained in Appendix B.

aided by reference to previous studies, social science research reference books, market research questionnaires, personal consultation and critical analysis.

In general, the purpose of the DDS was to collect data on the personal characteristics of the respondents. Data such as age, sex, religion, marital status, length of time in the United States, nationality, and similar characteristics were requested to facilitate cross-classifications. Most of the questions in the DDS were presented in either dichotomous or multiple-choice form, for the subject's convenience and for coding purposes.<sup>10</sup>

When a preliminary form of the DDS was completed, it was pre-tested under field conditions. A small sample of both American and foreign students was interviewed to assess their reactions, and obtain comments regarding specific aspects of the instrument. Upon completion of the pre-test, several small changes and additions were made to improve the content and format of the DDS.

#### Integration of the Four Research Instruments

The physical layout and reproduction of a questionnaire can influence its effectiveness in data collection, as well as the problems encountered in analyzing the data. Two major points were considered in integrating the four research instruments into a single, standardized questionnaire: (1) securing the cooperation of the respondents, and (2) making it easy to handle and control the questionnaires.

To solicit the respondent's cooperation, a brief introduction was prepared. Respondents were informed that it was a consumer opinion survey, that their opinions would make a valuable contribution, and that the results would be grouped so that

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<sup>10</sup> A copy of the DDS is found in Appendix B.

no individual would be identifiable. Respondents were also asked to complete the questionnaire in the proper sequence, beginning with part I, and ending with part IV. To prevent the possibility of biased answers, the specific purpose of the study was not given.

The sequence in which the four instruments were presented was designed to capture the respondent's interest, and to increase the accuracy of the answers. The Stick Figures Test was presented first, because it was easy to understand, and would arouse the curiosity of the respondent. The CAT was presented second because it required no specific knowledge, and made no reference to the subject's particular style of living; it merely measured his attitude toward a number of consumer related topics. Since several questions of a more personal nature were included in both the MCS and the DDS, they were placed third and fourth, respectively, so the respondent would encounter them toward the end of the time in which he was completing the questionnaire. It was felt that the respondent would be more willing to answer these questions at the end. Also, if these questions had been placed at the beginning of the questionnaire, they might have biased the subjects' later answers, or resulted in his refusal to fill out the rest of the questionnaire. Finally, the questionnaire included a short transitional statement between each of the four instruments, to point out the change in topics and thus avoid confusing the respondent.

The final format of the standardized questionnaire consisted of four parts: (1) the SFT answer sheet, (2) the CAT, (3) the MCS, and (4) the DDS. In addition, there was a separate booklet containing the stick figures for the SFT answer sheet.<sup>11</sup> To control the questionnaires in the field operation, as well as in editing and tabulating

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<sup>11</sup> The first few pages of the Stick Figures Booklet are included in Appendix B.

procedures, the questionnaires were numbered serially.

#### Pre-testing the Final Standardized Questionnaire

The final standardized questionnaire was pre-tested under field conditions. Personal interviews were conducted with a small sample of both American and foreign students. Since no major weaknesses were uncovered in the pre-test, the questionnaire was reproduced and, along with the Stick Figures Booklet, placed in a large manila envelope to facilitate data collection procedures.

#### The Respondents

The respondents included in the formal investigation were 200 undergraduate and graduate students at the University of Florida, in Gainesville. The number of foreign students in the sample was 116; the number of American students was 84. The foreign students were chosen from a list of the foreign students enrolled at the University. The foreign student sample included: 31 Indians, 23 Chinese, 16 Canadians, 10 Colombians, 9 Venezuelans, 9 Dutch, 7 Germans, 5 British, 3 French, 2 Italians, and 1 Belgian. The sampling technique was to contact as many of the students as possible in each of the above nationalities, who had not been included in any of the various pre-tests. Therefore, the total number of foreign students representing each nationality, both in the pre-tests and the formal investigation, was in direct proportion to the number enrolled at the University of Florida.

The sample of American students was selected after most of the data had already been collected from the foreign student sample. A preliminary frequency distribution was tabulated for the demographic characteristics of the foreign students. Then, using this information, the American sample was chosen so that it would resemble, as closely

as possible, the demographic characteristics of the foreign sample. In other words, the breakdown of graduates and undergraduates, males and females, married and unmarried, and other demographic characteristics, was approximately the same for the two samples.

### Field Procedure

A two-hour training session was held with the eleven interviewers. The interviewing team was composed of eight undergraduate marketing research students, and three graduate students in business administration. During the training session, the plan of the research, the questionnaire, and the procedure for contacting the respondents were carefully presented.

Interviewers were instructed to telephone each student on their list and set up a time to deliver the questionnaire to the respondent's home. This procedure would verify the address and prevent the interviewer from attempting to deliver the survey when the respondent was not at home. Generally speaking, there were very few refusals, and no exceptional circumstances were encountered in the collection of data. Respondents, particularly foreign students, were very cooperative and sometimes enthusiastic about filling out the questionnaire. Collection procedures were consistent throughout, and only 5 questionnaires were eliminated during the editing phase.

When delivering a questionnaire, the interviewers were asked to spend about five minutes with each respondent explaining the procedure for completing each part of the questionnaire. They were urged to emphasize the valuable contribution the respondent would be making and the importance of completing the entire questionnaire accurately, without suggestions from others. The interviewers were further cautioned not to identify the purpose of the survey, but rather to stress the fact that the respondents could obtain a summary of the final results, if they wished it. About 60

percent of the sample requested a summary. The complete questionnaire, with the Stick Figures Booklet and instructions, was left with the respondents to fill out at their convenience. The interviewer made an appointment to pick up the questionnaire at the respondent's home within 2 or 3 days. The interviews were made between April 20 and May 25, 1971.

### CHAPTER III

#### DATA ANALYSIS AND INTERPRETATION

The purpose of Chapter II was to describe the methodology involved in preparing the research questionnaire, and the conditions under which the survey was conducted. In this chapter, the results that were obtained in the empirical investigation of acculturation and consumer purchasing patterns are presented, analyzed, and interpreted.

Three statistical procedures were employed to facilitate analysis and interpretation of the data. First, stepwise multiple regression was used to determine whether or not statistically significant relationships existed between culture, acculturation, and consumer behavior. The findings of this preliminary analysis were valuable not only in testing the hypotheses, but also in suggesting the methods as well as the direction for further analysis. Accordingly, the SFT, the MCS, and the CAT were factor analyzed to determine if a number of underlying common dimensions (factors) were being measured by the research instruments. Finally, scores on the MCS and CAT factors were combined with the total scores for the SFT, and a canonical analysis was performed to investigate the nature of the relationships between the acculturation constructs identified in the factor analysis, and the demographic variables.

### Stepwise Multiple Regression Analysis

Multiple regression analysis involves inserting values of predictor (independent) variables into a regression equation to obtain an estimate of the value of a single criterion (dependent) variable. The strength of the relationship that exists between the criterion variable and the several predictor variables is measured by the multiple correlation coefficient ( $R$ ). When squared, this correlation coefficient may be interpreted as the proportion of the variance of the criterion variable accounted for by the predictor variables in the regression equation.

Stepwise multiple regression, a special case of the general multiple regression model, was chosen for this phase of the study because it enabled the researcher to assess the relative contribution of each of the independent variables toward prediction of the criterion variable. In short, the procedure involved adding one independent variable at a time to the prediction equation; thus providing a number of intermediate regression equations as well as the complete equation. Variables were added or dropped according to the statistical significance of their contribution to the prediction of the dependent variable (Frank, Kuehn and Massey, 1962, p. 93).

The results of the stepwise regression analysis which was performed on the 116 foreign respondents, are presented in Tables 1, 2, and 3. The dependent (criterion) variables for these regressions were total score on either the SFT, the MCS, or the CAT. Fourteen demographic characteristics, devised from the data collected with the DDS, were used as independent variables.<sup>1</sup> In addition, total scores on the

<sup>1</sup> Among the assumptions of the multiple linear regression model are dichotomous or intervally scaled variables, linear relationships between the variables, homoscedasticity, multivariate normality, and individual errors that are statistically independent of each other, as well as uncorrelated with the independent variables.

SFT, the MCS or the CAT were included as independent variables in several instances, to assess the extent to which performance on one or more of these acculturation measures could be used to predict performance on another.

The regression analysis permitted conclusions as to whether there were systematic relationships, as opposed to mere chance variation. Table 1 shows that several statistically significant relationships were found between performance on the CAT (dependent variable) and the various independent variables. A number of similar relationships also were found for the SFT and MCS, and are presented in Tables 2 and 3, respectively. Thus, evidence of a strong interaction between culture, acculturation and consumer purchasing patterns, which was required for rejecting the null hypotheses, appeared to be present.

#### Tests of the Research Hypotheses

It was pointed out in Chapter I that the concept of culture is applicable to all human behavior; that the way in which man consumes, the priority of the needs and wants he attempts to satisfy, and the manner in which he satisfies them are manifestations of his culture. At the same time, it was noted that behavioral patterns are influenced, to a great extent, by cultural inputs received over time from the individual's environment. Thus in attempting to understand attitudes and preferences, it is necessary to understand the cultural customs and traditions which the individual has absorbed. The process of acquiring a culture different from the one in which a

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in the regression equation (Frank, Kuehn and Massey, 1962, p. 97). Based on these assumptions several demographic variables were eliminated and others were combined into new, composite variables. The fourteen independent (predictor) variables retained for use in this study are listed in Appendix C.

TABLE 1

SUMMARY OF STEPWISE MULTIPLE REGRESSIONS USING THE CAT AS THE  
DEPENDENT CRITERION VARIABLE

Independent Variable = SFT					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
SFT	0.447	0.200	0.200	1/114	28.414 <sup>a</sup>
Independent Variable = MCS					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
MCS	0.608	0.369	0.369	1/114	66.671 <sup>a</sup>
Independent Variables = SFT and MCS					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
MCS	0.608	0.369	0.369	1/114	66.671 <sup>a</sup>
SFT	0.635	0.403	0.034	2/113	6.475 <sup>a</sup>
Independent Variables = Demographic Data					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
Progressive Country	0.613	0.376	0.376	1/114	68.658 <sup>a</sup>
Age	0.716	0.512	0.136	2/113	31.522 <sup>a</sup>
Expresses Christianity	0.736	0.541	0.029	3/112	7.025 <sup>a</sup>
Ability	0.757	0.574	0.033	4/111	8.507 <sup>a</sup>
Time in U.S.	0.770	0.594	0.020	5/110	5.409 <sup>a</sup>
American Roommate	0.776	0.602	0.009	6/109	2.388 <sup>b</sup>
American Spouse	0.780	0.608	0.006	7/108	1.771 <sup>c</sup>
Urban Background	0.783	0.613	0.005	8/107	1.358 <sup>d</sup>
Brothers and Sisters	0.786	0.617	0.004	9/106	1.332 <sup>d</sup>

Table 1 Continued

Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
Television	0.788	0.622	0.004	10/105	1.150
Father White Collar	0.789	0.623	0.001	11/104	0.330
Remain in U.S.	0.790	0.624	0.001	12/103	0.230
Sex	0.790	0.624	0.000	13/102	0.093
First Born	0.790	0.624	0.000	14/101	0.083

<sup>a</sup> Significant beyond the 0.01 level.<sup>b</sup> Significant above the 0.05 level.<sup>c</sup> Significant above the 0.10 level.<sup>d</sup> Significant above the 0.25 level.

TABLE 2  
SUMMARY OF STEPWISE MULTIPLE REGRESSION USING THE SFT AS THE  
DEPENDENT VARIABLE

Independent Variables = Demographic Data					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
Progressive Country	0.461	0.212	0.212	1/114	30.711 <sup>a</sup>
Time in U.S.	0.556	0.309	0.097	2/113	15.910 <sup>a</sup>
Father White Collar	0.572	0.327	0.018	3/112	2.981 <sup>b</sup>
First Born	0.586	0.344	0.016	4/111	2.765 <sup>b</sup>
American Spouse	0.602	0.362	0.018	5/110	3.175 <sup>a</sup>
Mobility	0.615	0.378	0.016	6/109	2.721 <sup>b</sup>
American Roommate	0.625	0.390	0.013	7/108	2.264 <sup>b</sup>
Urban Background	0.633	0.400	0.010	8/107	1.783 <sup>c</sup>
Brothers and Sisters	0.639	0.408	0.007	9/106	1.299 <sup>d</sup>
Television	0.643	0.414	0.006	10/105	1.036

Table 2 Continued

Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
Remain in U.S.	0.645	0.417	0.003	11/104	0.550
Expresses Christianity	0.648	0.420	0.003	12/103	0.546
Age	0.649	0.421	0.001	13/102	0.214

<sup>a</sup> Significant beyond the 0.01 level.<sup>b</sup> Significant above the 0.05 level.<sup>c</sup> Significant above the 0.10 level.<sup>d</sup> Significant above the 0.25 level.

TABLE 3

## SUMMARY OF STEPWISE MULTIPLE REGRESSION USING THE MCS AS THE DEPENDENT VARIABLE

Independent Variables = Demographic Data					
Independent Variable	R	R <sup>2</sup>	Increase in R <sup>2</sup>	Degrees of Freedom	F-Ratio
Progressive Country	0.623	0.388	0.388	1/114	72.197 <sup>a</sup>
Time in U.S.	0.663	0.439	0.052	2/113	10.412 <sup>a</sup>
American Roommate	0.688	0.474	0.034	3/112	7.309 <sup>a</sup>
Expresses Christianity	0.709	0.503	0.029	4/111	6.469 <sup>a</sup>
Remain in U.S.	0.721	0.520	0.017	5/110	3.940 <sup>a</sup>
Ability	0.725	0.525	0.005	6/109	1.155 <sup>d</sup>
First Born	0.728	0.530	0.005	7/108	1.147 <sup>d</sup>
Brothers and Sisters	0.731	0.534	0.004	8/107	0.929
Sex	0.735	0.540	0.006	9/106	1.476 <sup>d</sup>
American Spouse	0.736	0.542	0.002	10/105	0.462

<sup>a</sup> Significant beyond the 0.01 level.<sup>b</sup> Significant above the 0.05 level.<sup>c</sup> Significant above the 0.01 level.<sup>d</sup> Significant above the 0.25 level.

person was originally raised has been referred to as acculturation. Implicit in this concept is the overlaying of new and different cultural patterns on the individual's heritage culture.

In this study, acculturation referred to the process of adapting American attitudes and behavioral patterns. Specifically, attention was focused on the movement of foreign students at the University of Florida along a theoretical acculturation continuum from the unacculturated extreme where heritage traditions and customs prevailed, toward the opposite acculturated extreme where American attitudes and behavior patterns had been adapted.

A global acculturation test administered to a group of respondents with diverse cultural backgrounds was expected to demonstrate differences in their degree of acculturation. At the same time, a test of consumer acculturation administered to the identical sample was expected to show differences in the extent of their acculturation as consumers. Thus, it was anticipated that less acculturated persons, as demonstrated by the measures of global acculturation and consumer acculturation, would exhibit behavior somewhat influenced by their cultural heritage, whereas more acculturated persons would exhibit behavior more like members of the dominant, American culture. Four research hypotheses dealing with these relationships were examined and evaluated in this investigation. The tests of these hypotheses are presented in the following paragraphs.

Hypothesis I. Consumer behavior is not affected significantly by the acculturation process.

To test this hypothesis, it was necessary to examine the relationship between the global acculturation process, as measured by the SFT and MCS, and the extent of

consumer acculturation, as measured by the CAT. If a systematic relationship could be demonstrated between consumer acculturation, i.e., patterns of consumer behavior, and global acculturation, then the null hypothesis would have to be rejected and the alternative hypothesis accepted.

Reference to Table 1 indicates that a systematic relationship was found between the SFT, the MCS and the CAT. The SFT accounted for 20 percent ( $R^2 = 0.20$ ) of the variance in the CAT while the MCS accounted for 36.9 percent ( $R^2 = 0.369$ ) of the variance. Moreover, when combined the global acculturation measures explained 40.3 percent of the variance in the CAT. Since all of these relationships were statistically significant beyond the 0.01 level, the null hypothesis was rejected and the alternative accepted.

Hypothesis II. The acculturation process for persons from progressive countries<sup>2</sup> does not differ significantly from the acculturation process for persons from less progressive countries.

Hypothesis II tested the relationship between the global acculturation process for persons from progressive countries, and that for persons from less progressive countries. If a systematic relationship could be demonstrated between the global acculturation process, as measured by the SFT and the MCS, and whether respondents were from a progressive or non-progressive country, then the null hypothesis would have to be rejected and the alternative hypothesis accepted.

Inspection of Tables 2 and 3 shows that a systematic relationship was identified

<sup>2</sup> For this study, India, the Republic of China, Colombia and Venezuela were classified as non-progressive countries, whereas Canada, Britain, France, Germany, Holland, Belgium and Italy were considered progressive countries.

between performance on the two global acculturation measures and whether a respondent was from a progressive or non-progressive country. Table 2 indicates that knowledge of this relationship explained 21.2 percent of the variance on the SFT. An even stranger relationship was discovered for the other global acculturation measure. Table 3 shows that 38.8 percent of the variance in the MCS was accounted for by knowing a respondent's native country. Both of these relationships were statistically significant beyond the 0.01 level. Therefore, the null hypothesis was rejected and the alternative accepted.

Hypothesis III. The purchasing patterns (consumer behavior) of persons from progressive countries do not differ significantly from the purchasing patterns of persons from less progressive countries.

To test the third hypothesis, it was necessary to examine the relationship between the extent of consumer acculturation, as measured by the CAT, and whether respondents were from progressive or non-progressive countries. The presence of a systematic relationship between the extent of acculturation and a respondent's native country would necessitate rejecting the null hypothesis and accepting the alternative hypothesis.

From an examination of Table 1, it is evident that a systematic relationship was found between the degree of consumer acculturation and the type of country. By knowing whether a respondent was from a progressive or non-progressive country, it was possible to account for 37.6 percent of the variance in the CAT. This relationship was statistically significant above the 0.01 level. On the basis of these empirical findings, the null hypothesis was rejected and the alternative accepted.

Hypothesis IV. Demographic variables such as age, sex, marital status, and

time, cannot be used as indicators of differences in the acculturation process in general, or of the consumer acculturation process in specific.

Testing hypothesis IV required an examination not only of the relationship between the global acculturation measures and the demographic variables, but also between the consumer acculturation test and the demographic variables. If a systematic relationship could be identified between the demographic variables and the three acculturation measures, then the null hypothesis would have to be rejected and the alternative accepted.

Reference to Tables 1, 2, and 3 shows that a systematic relationship was found between the three acculturation measures and the demographic variables. Table 1 reveals that the relationships for four demographic variables--age, expresses Christianity, mobility, and time in the U.S.--accounted for 21.8 percent of the variance in the CAT, and were statistically significant above the 0.01 level. Relationships between the CAT and two other variables--American roommate and American spouse--explained an additional 1.4 percent of the variance, and were significant at the 0.05 and 0.10 levels, respectively. Reference to Tables 2 and 3 indicates that a number of similar relationships were identified between demographic variables and the SFT and the MCS. Several of these relationships were statistically significant beyond the 0.01 level, and others were significant at the 0.05, 0.10, and 0.25 levels.

From the empirical results, the null statement of hypothesis IV was rejected and the alternative hypothesis accepted.

### Multiple Factor Analysis<sup>3</sup>

While the data presented in the preceding section provided considerable

<sup>3</sup> The factor analysis procedures employed in this section of the study were

insight into several important relationships between acculturation and consumer purchasing patterns, additional information would contribute much toward further exploring the many facets of the cultural variable, and how it relates to the acculturation process and consumer behavior. The three aggregate measures (total test scores) of acculturation were appropriate for use in the stepwise multiple regression analysis. However, to carry out a more extensive analysis of the fundamental cultural and behavioral constructs, it was necessary to separate the aggregate acculturation measures into a number of distinct, but related factors. In short, factor analytic techniques were used to systematically identify and define the underlying dimensions (factors) of the MCS and the CAT.<sup>4</sup>

Multiple factor analysis is a statistical technique for analyzing the interrelationships between a large number of variables (questions), and then exploring these variables in terms of their common, underlying dimensions (factors). For example, a hypothetical consumer survey may consist of 100 questions; but since not all of the questions are identical, they do not all measure the basic underlying dimensions to the same extent. By using factor analysis, the researcher can identify the separate dimensions (factors) being measured with the survey, and determine a factor loading for each item (question) on each factor.

All techniques of factor analysis begin with a complete table of the inter-correlations (correlation matrix) among the test items. The correlation matrix is then rotated to obtain a factor matrix, i.e., a table showing the factor loadings of all

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based primarily on those presented in the text *Introduction to Modern Factor Analysis*, by W. H. Guertin and J. P. Boiley, Jr., 1970.

<sup>4</sup> Several trial factor rotations were also performed on the SFT, but the amount of total score variance which could be accounted for was insufficient to justify factor analysis procedures. The DDS was not submitted to factor analysis either, because only 14 items were retained for the final analysis.

the test questions on each of the factors. The relationship between the factors in any factor matrix may be orthogonal (at right angles to each other) or oblique. However, orthogonal solutions seldom describe realistic situations, and to represent underlying traits properly, it is necessary to employ oblique factor solutions. In fact, any careful work should employ an oblique solution; the only justification for using an orthogonal solution is mathematical convenience (Guertin and Bailey, 1970, p. 123).

#### Interpretation of MCS and CAT Factors

Both orthogonal and oblique V-factor solutions were computed for the Modified Campisi Scale and the Consumer Acculturation Test. The MCS and CAT factor matrices presented in this chapter were adapted from the oblique V-factor solutions.<sup>5</sup> Tables 4 through 9 represent the six factors chosen from the factor analysis of the MCS; and tables 11 through 21 are the eleven factors obtained by factor analyzing the CAT. An examination of Table 4 will serve to illustrate some basic concepts and clarify several additional terms.

To understand the nature of a particular factor, it is necessary to examine the items with high loadings on that factor. A factor loading is the correlation between an item and its factor; the squared factor loading (coefficient of determination) gives the percentage of the variance of a particular item which may be predicted by a particular factor. For example, the Your Neighborhood variable has a loading of 0.63 on the Cultural Life Style factor from the MCS; thus  $0.63^2 = .397$ , or 39.7 percent of the variance in scores on the Your Neighborhood variable may be

<sup>5</sup> The corresponding orthogonal factor solutions for the MCS and the CAT are contained in Appendix C. These orthogonal factor solutions were used in computing factor scores for the MCS and CAT factors included in the canonical correlation analysis.

predicted from this single factor. In practical work with factor analysis, loadings below 0.20 are not usually considered significant; loadings between 0.30 and 0.40 may be important; if the loadings are 0.40 to 0.50, they are considered significant; and loadings over 0.50 are considered quite strong (Frank, Kuehn, and Massey, 1962, p. 432). In short, then, the higher the factor loading the more a particular question defines the basic dimension being measured. For the present research a loading of 0.30 was adopted as the minimum acceptable.

The process of giving a name to a dimension derived through factor analysis is a rather subjective proposition. In essence, the researcher simply examines the items which are loading high on a particular factor and tries to determine the underlying characteristics they have in common. Thus, the more items with high loadings on a given factor, the easier it should be to clearly define the nature of the factor. For example, looking at the first six items on factor one for the MCS (Cultural Life Style), it can be seen that all have loadings of 0.49 or higher; and there is a rather consistent cultural expression and life style dimension associated with them. Furthermore, these dimensions are not violated by the other items with lower loadings; instead the other items lend additional support to the name chosen for this factor.

Tables 4 through 9 and 11 through 21 show the factors obtained in the study. In each case only those items with a loading of  $\geq 0.30$  were included. Generally speaking, each of the factors was assigned a name in accordance with the procedures outlined in the preceding paragraph.

One final aspect should be mentioned regarding the interpretation of the factors presented in this chapter. Since the MCS and CAT factors were adapted from oblique V-factor solutions, the intercorrelations between the oblique reference

TABLE 4

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ONE  
ON THE MODIFIED CAMPISI SCALE

## FACTOR ONE: CULTURAL LIFE STYLE

Item Number	Item Topic <sup>a</sup>	Factor Loading
14	Your Neighborhood	0.63
22	Gestures Used In Talking	0.55
16	Clubs And Societies	0.55
15	Language	0.53
21	Etiquette And Good Manners	0.52
13	Holidays	0.49
29	Celebrating Family Occasions	0.42
28	Family Behavior Toward Each Other	0.40
25	Celebrating Holidays	0.39

<sup>a</sup> A complete statement of each item is found in Appendix B.

TABLE 5

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TWO  
ON THE MODIFIED CAMPISI SCALE

## FACTOR TWO: FOREIGN FOOD FACTOR

Item Number	Item Topic	Factor Loading
2	Foreign Salads	0.81
8	Foreign Vegetables	0.77
4	Foreign Meats	0.75
5	Foreign Desserts	0.68

TABLE 6

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR THREE  
ON THE MODIFIED CAMPISI SCALE

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FACTOR THREE: AMERICAN FOOD FACTOR

Item Number	Item Topic	Factor Loading
7	American Vegetables	0.63
3	American-style Meats	0.59
1	American Salads	0.58
10	Food	0.44
11	Food Seasonings	0.30

---

TABLE 7

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FOUR  
ON THE MODIFIED CAMPISI SCALE

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FACTOR FOUR: PERSONAL EXPRESSION

Item Number	Item Topic	Factor Loading
24	Ways Of Having Fun	0.64
23	Ways Of Teasing And Joking	0.51
22	Gestures Used In Talking	0.30

---

TABLE 8

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FIVE  
ON THE MODIFIED CAMPISI SCALE

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FACTOR FIVE: LEISURE TIME

Item Number	Item Topic	Factor Loading
17	Songs	0.65
18	Dances	0.60
19	Book And Magazines	0.52
20	Radio Programs	0.51
12	Games Of All Kinds	0.36

TABLE 9

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SIX  
ON THE MODIFIED CAMPISI SCALE

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FACTOR SIX: UNDEFINED

Item Number	Item Topic	Factor Loading
6	American Breakfasts	0.46
27	Ways Of Courtship	0.44
26	First Name	0.42

---

factors should be examined for pertinent relationships. Tables 10 and 22 present the intercorrelation matrices for the MCS and the CAT. A couple of interesting aspects pointed out by the MCS matrix were, for example, that factor one,

TABLE 10

INTERCORRELATIONS OF OBLIQUE REFERENCE FACTORS FOR THE MODIFIED CAMPISI SCALE

	1	2	3	4	5	6
1	1.000	0.141	-0.038	-0.469	-0.094	-0.161
2	0.141	1.000	-0.285	-0.095	-0.035	-0.103
3	-0.038	-0.285	1.000	-0.201	0.024	0.222
4	-0.469	-0.095	-0.201	1.000	-0.066	-0.088
5	-0.094	-0.035	0.024	-0.066	1.000	0.005
6	-0.161	-0.103	0.222	-0.088	0.005	1.000

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TABLE 11

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ONE  
ON THE CONSUMER ACCULTURATION TEST

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FACTOR ONE: ASSORTMENT

Item Number	Item Topic <sup>a</sup>	Factor Loading
21	Brand Variety	0.66
14	Product Variety	0.65
7	Merchandise Variety	0.62
16	Product Size And Weight Variety	0.58
25	Product Name Variety	0.48
33	Package Size Variety	0.35

<sup>a</sup> A complete statement of each item is found in Appendix B.

TABLE 12

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TWO  
ON THE CONSUMER ACCULTURATION TEST

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FACTOR TWO: LABOR-SAVING

Item Number	Item Topic	Factor Loading
11	Labar-Saving	0.83
17	Labor-Saving	0.82
4	Labar-Saving	0.34

TABLE 13

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR THREE  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR THREE: GENERAL

Item Number	Item Topic	Factor Loading
31	Eating Habits	0.68
36	Store Procedures	0.58
34	Type Of Food Eaten	0.54
32	Type Of Outlet	0.38
30	Cinemo Advertisements	0.37

TABLE 14

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FOUR  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR FOUR: TYPE OF OUTLET

Item Number	Item Topic	Factor Loading
20	Type Of Outlet	0.62
1	Type Of Outlet	0.55
27	Type Of Outlet	0.54
13	Store Procedures	0.50
19	Type Of Outlet	0.43
32	Type Of Outlet	0.30

TABLE 15

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR FIVE  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR FIVE: PURCHASING EFFORT

Item Number	Item Topic	Factor Loading
6	Purchasing Effort	0.68
10	Purchasing Effort	0.68

TABLE 16

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SIX  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR SIX: ACCULTURATED CONSUMER

Item Number	Item Topic	Factor Loading
5	Do-It-Yourself Kits	0.52
12	Modern, Stylish Packages	0.41
19	Enjoys Self-Service Stores	0.36
29	Prefers Metric System	-0.31

TABLE 17

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR SEVEN  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR SEVEN: BRANDING

Item Number	Item Topic	Factor Loading
28	Branding	0.73
35	Bronding	0.71

TABLE 18

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR EIGHT  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR EIGHT: UNACCULTURATED CONSUMER

Item Number	Item Topic	Factor Loading
23	Frequent Changes Seem Strange	0.56
26	Car Ownership Seems Strange	0.51
22	Men Are Most Important Purchasing Agent	0.49

TABLE 19

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR NINE  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR NINE: UNDEFINED

Item Number	Item Topic	Factor Loading
2	Purchasing With Credit Seems Strange	0.43
25	Many Similar Product Names Confusing	-0.40

TABLE 20

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR TEN  
ON THE CONSUMER ACCULTURATION TEST

## FACTOR TEN: MERCHANDISING

Item Number	Item Topic	Factor Loading
9	Troding Stamps	0.59
24	Sales, Contests, Caupans	0.40
8	Credit	0.40

TABLE 21

ITEM NUMBERS, ITEM TOPICS, AND FACTOR LOADINGS FOR FACTOR ELEVEN  
ON THE CONSUMER ACCULTURATION TEST

**FACTOR ELEVEN: SHOPPING HABITS**

Item Number	Item Topic	Factor Loading
18	Product Choice Based On Convenience	0.47
3	Large Amounts Of Food Purchased	-0.41

Cultural Life Style, was positively correlated (0.141) with factor number two, the Foreign Food factor. Furthermore, it can be seen that factor two (Foreign Food) was negatively correlated (-0.285) with factor three, the American Food factor. The CAT intercorrelation matrix also provided insight into a couple of more detailed aspects of the consumer behavior dimension. For example, factor one (Assortment) was negatively correlated (-0.343) with factor eight (Unacculturated Consumer). Thus, persons who scored high on the Assortment dimension showed a tendency to score low on factor eight, the Unacculturated Consumer dimension. At the same time, factor one was positively correlated (0.142) with factor two. This showed that persons who scored high on the Assortment dimension also had a tendency to score high on the Labor-Saving dimension.

TABLE 22  
INTERCORRELATIONS OF OBLIQUE REFERENCE FACTORS FOR THE CONSUMER ACCULTURATION TEST

	1	2	3	4	5	6	7	8	9	10	11
1	1.000	0.142	-0.101	-0.193	-0.131	-0.093	0.044	-0.343	-0.122	-0.078	-0.036
2	0.142	1.000	-0.118	-0.055	-0.030	-0.094	-0.136	-0.057	-0.090	0.081	-0.026
3	-0.101	-0.118	1.000	-0.064	-0.156	0.009	0.160	-0.183	0.290	-0.120	0.064
4	-0.193	-0.055	-0.064	1.000	0.003	0.020	0.002	-0.088	0.071	0.058	0.190
5	-0.131	-0.030	-0.156	0.003	1.000	-0.062	-0.079	-0.035	-0.049	0.166	-0.308
6	-0.093	-0.094	0.009	0.020	-0.062	1.000	-0.089	0.035	0.033	-0.102	0.036
7	0.044	-0.136	0.160	0.002	-0.079	-0.089	1.000	0.017	-0.099	-0.041	0.041
8	-0.343	-0.057	-0.163	-0.088	-0.035	0.085	0.017	1.000	0.013	-0.032	-0.094
9	-0.122	-0.090	0.029	0.071	-0.049	0.033	-0.099	0.013	1.000	0.059	-0.020
10	-0.079	0.081	-0.120	0.058	0.166	-0.102	-0.041	-0.032	0.059	1.000	-0.073
11	-0.036	-0.026	0.064	0.190	-0.008	0.036	0.041	-0.094	-0.020	-0.073	1.000

### Canonical Correlation Analysis

The existence of several statistically significant relationships between culture, acculturation, and consumer behavior was confirmed in the first phase of data analysis. During the second phase, a number of underlying, behavioral dimensions were identified using factor analytic techniques. Then a profile consisting of total score on the SFT and factor scores on the MCS and CAT was obtained for each subject, along with a profile of demographic characteristics. For the third phase of the analysis of data, a multivariate statistical model designed to explore the nature as well as the magnitude of the relationships between multiple criterion and predictor variables was needed. Accordingly, canonical correlation analysis was chosen.

Canonical correlation analysis is a multivariate correlational model which enables the researcher to study the interrelations among sets of multiple criterion variables and multiple predictor variables. In general, the goal of canonical analysis is to define the primary independent dimensions which relate one set of variables to another set of variables (Veldman, 1967, p. 282). By using this technique, it is possible to develop a number of independent (orthogonal) canonical functions that maximize the correlation between the criterion and predictor variables.<sup>6</sup> To measure the overall correlation between the two sets of variables, a canonical correlation (multiple R) is computed for each canonical function. Each function is derived in descending order and successive canonical correlations are smaller as each additional function is extracted. Canonical roots ( $R^2$ ), or squared canonical correlations,

<sup>6</sup> The maximum number of independent multivariate relationships which can be defined between the two sets of original variables is equal in number to the smaller of the two sets.

provide an estimate of the proportion of the total variance in the criterion variables that can be explained from the known variance in the predictor variables.

To understand the nature of the relationships which are defined by the canonical functions, it is necessary to compute the correlation coefficients between the original variables and the canonical variates.<sup>7</sup> Such coefficients are indicative of the relative contributions of variables to each independent canonical function, and can be interpreted like factor loadings. Therefore, original variables with large coefficients on a particular canonical function are used in defining the nature of the composite dimensions (Veldman, 1967, p. 288).

#### Results of the Canonical Analysis

A canonical correlation analysis was performed using fourteen predictor variables (demographic data) and eighteen criterion variables (MCS and CAT factor scores, and total score on SFT). Fourteen canonical functions were extracted (as many as the number of predictor variables), of which five had canonical correlation coefficients statistically significant above the 0.052 level. These five functions are illustrated in Tables 23 and 24.

As can be observed from Table 23, the strength of the association ( $R$ ) between the sets of variables ranged from 0.840 for the first canonical function, to 0.551 for the fifth function. The corresponding canonical roots ( $R^2$ ) ranged from 0.710 on the first function, to 0.311 on the fifth. Since canonical roots reflect the amount

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<sup>7</sup> Canonical variates are the composite variables derived by assigning weights to each set of criterion and predictor variables. Each canonical function has two separate canonical variates, one for the original criterion variables, and one for the original predictor variables.

TABLE 23  
CANONICAL ROOTS, CANONICAL R'S, CHI SQUARE VALUES, DEGREES OF  
FREEDOM, AND PROBABILITY LEVELS FOR CANONICAL FUNCTIONS

	Canonical Functions				
	I	II	III	IV	V
Canonical Roots ( $R^2$ )	0.710	0.482	0.391	0.380	0.311
Canonical R's	0.840	0.696	0.625	0.614	0.551
Chi Square Values	120.733	64.205	48.516	46.974	35.255
Degrees of Freedom	31.000	29.000	27.000	25.000	23.000
Probability Levels	0.000	0.000	0.008	0.006	0.052

of shared variance among the two sets of variables, the findings show that a number of relatively strong systematic relationships were identified between culture, acculturation, consumer purchasing patterns, and demographic characteristics.<sup>8</sup>

The nature of the relationships between the variables and the canonical functions are revealed in Table 24. The correlation coefficients between the original variables and the canonical variables are given for each separate canonical function (column). These coefficients provide insight regarding the relative contributions of variables to each independent canonical relationship, and can be interpreted like factor loadings. Each canonical function should be viewed as an independent relationship, and examined for clusters of variables on both sides of the relationship that have high

<sup>8</sup> It should be noted that because canonical correlations are maximal, the canonical relationships between sets are invariably overstated. Therefore, in assessing how strongly the two sets of variables are related in a practical sense, the strength of the association ( $R$ ) between the sets of variables should be deflated somewhat.

TABLE 24  
RELATIONSHIPS<sup>a</sup> BETWEEN VARIABLES AND CANONICAL FUNCTIONS

Variables	Variable Number	Canonical Functions					
		I	II	III	IV	V	
<u>Criterion Set (Acculturation Measures)</u>							
<u>Factors from the Consumer Acculturation Test</u>							
Assortment	1	<u>0.46<sup>b</sup></u>	0.00	0.15	-0.21	-0.25	
Labor-Saving	2	0.04	-0.25	-0.14	<u>0.46</u>	-0.14	
General	3	0.25	<u>0.36</u>	0.28	<u>0.39</u>	0.16	
Type of Outlet	4	0.23	-0.20	0.08	-0.06	0.06	
Purchasing Effort	5	0.10	<u>-0.58</u>	0.24	0.19	0.27	
Acculturated Consumer	6	-0.00	0.09	0.27	<u>0.68</u>	-0.17	
Branding	7	<u>-0.40</u>	0.26	-0.09	0.03	-0.06	
Unacculturated Consumer	8	<u>-0.34</u>	0.24	-0.02	0.03	<u>0.32</u>	
Undefined	9	-0.18	-0.16	0.04	-0.08	<u>-0.11</u>	
Merchandising	10	<u>0.37</u>	-0.08	-0.15	<u>0.30</u>	0.01	
Shopping Habits	11	0.20	0.10	<u>-0.37</u>	-0.09	-0.12	
<u>Stick Figures Test, Total Score</u>	12	<u>0.70</u>	-0.17	-0.09	-0.05	<u>-0.30</u>	
<u>Factors from the Modified Campisi Scale</u>							
Cultural Life Style	13	-0.22	0.16	<u>-0.72</u>	0.10	0.04	
Foreign Food	14	<u>0.74</u>	<u>0.30</u>	0.07	0.19	-0.02	
American Food	15	0.25	<u>-0.57</u>	0.10	-0.15	0.01	
Personal Expression	16	-0.02	-0.09	-0.07	-0.02	<u>0.43</u>	
Leisure Time	17	0.08	-0.14	-0.12	-0.17	<u>0.15</u>	
Undefined	18	-0.19	-0.13	-0.11	0.21	-0.29	

Table 24 Continued

Variables	Variable Number	Canonical Functions				
		I	II	III	IV	V
<b>Predictor Set (Demographic Data)<sup>c</sup></b>						
Age	1	-0.23	<u>0.54</u>	0.17	-0.12	0.03
Sex	2	0.21	<u>0.02</u>	-0.12	-0.01	0.12
American Roommate	3	0.26	0.27	0.22	0.20	<u>0.33</u>
Expresses Christianity	4	<u>0.50</u>	<u>0.38</u>	-0.28	-0.08	-0.01
American Spouse	5	0.17	-0.01	0.17	0.03	-0.09
Mobility	6	<u>0.42</u>	-0.20	0.19	<u>0.50</u>	0.06
Urban Background	7	0.24	0.02	-0.36	0.26	0.21
Remain in U.S.	8	<u>0.45</u>	-0.15	-0.27	-0.25	0.08
Father White Collar	9	-0.10	0.14	-0.01	0.03	<u>0.80</u>
Brothers and Sisters	10	-0.15	<u>0.33</u>	<u>0.60</u>	0.01	0.14
First Born	11	0.00	-0.14	<u>0.35</u>	-0.20	0.16
Time in U.S.	12	<u>0.62</u>	<u>-0.52</u>	-0.15	-0.07	0.19
Progressive Country	13	<u>0.86</u>	-0.03	0.06	-0.16	-0.01
Television	14	0.24	0.08	-0.36	0.40	<u>0.31</u>

<sup>a</sup> The values included in this table represent the correlation coefficients between the original variables and the canonical variables; large coefficients for a particular canonical function (column) can be interpreted like factor loadings, in terms of the names of the original variables, as suggesting the content of the composite dimension.

<sup>b</sup> All correlation coefficients  $\geq 0.30$  are underlined to indicate those variables contributing most to each of the composite dimensions.

<sup>c</sup> In general, independent (predictor) variables were identified and coded in a positive, dichotomous manner. For example, respondents with an American roommate were coded 1, those without were coded 0. Sex was coded 1 for males, 0 for females. Coding for age and time in U.S. ranged from 1 to 6; younger respondents and shorter time in U.S. corresponded to the lower end of the range. Higher scores on the SFT, MCS and CAT indicated a respondent was more acculturated; thus a positive correlation between, for example, Mobility and the Assortment factor (CAT), showed that mobile respondents tended to be more acculturated in terms of Assortment.

loadings (large coefficients). In this study, only variables with a loading of  $\geq 0.30$  (underlined) on a particular function were considered in interpreting the nature of the relationships.

To clarify the procedure for interpreting the findings presented in Table 24, several examples of the identified relationships will be discussed. An examination of the variables loading on the first canonical function shows that being from a progressive country, having been in the U.S. for a longer period of time, expressing a desire to remain in the U.S. (become a citizen), having lived in a number of different countries (Mobility), and expressing a preference for Christianity, were all positively related to the Assortment and Merchandising factors from the CAT, as well as to the SFT and the Foreign Faad factor from the MCS. In contrast, these same demographic variables were negatively related to the Branding and Unacculturated Consumer factors from the CAT. These relationships indicate, therefore, that respondents exhibiting one or more of the above mentioned demographic characteristics, for example, being from a progressive country, tended to score higher<sup>9</sup> on the Assortment, Merchandising, and Foreign Faad factors, and on the SFT as well. At the same time, they tended to score lower on the Branding and Unacculturated Consumer factors.

The relationship defined by the variables loading high on the second canonical function demonstrated that being older, expressing a preference for Christianity, and having brothers and sisters, were positively related to the General factor from the CAT and the Foreign Faad factor from the MCS. The same demographic

<sup>9</sup> The scoring procedure for the SFT, the MCS, and the CAT was designed so that a higher score indicated that a respondent was more acculturated.

variables were negatively related to the Purchasing Effort factor on the CAT and the American Food factor on the MCS. In addition, having been in the U.S. for a longer period of time was positively related to the American Food factor (MCS) and the Purchasing Effort factor, and negatively related to the Foreign Food and General factors. Looking only at the predictor variables, it is evident also that having been in the U.S. for a longer period of time was negatively related to being older, expressing Christianity, and having brothers and sisters.

Summarily, then, the foregoing examples illustrate the manner in which the canonical functions were interpreted. In general, the results of the canonical analysis provided additional support for the relationships demonstrated by the stepwise multiple regressions. However, even more important were the numerous insights gained regarding the MCS and CAT factors and their interrelations with the demographic variables.

## CHAPTER IV

### SUMMARY AND CONCLUSIONS

The purpose of this investigation was to formulate a cultural anthropological approach to the study of consumer behavior, and to further conceptualize a theoretical tool, the acculturation process, by which the purchasing patterns of foreign students at the University of Florida (or others undergoing acculturation) could be studied. Theoretical and behavioral constructs involved in this exploratory study were so complex and interrelated, that the researcher cannot claim to have completely assessed the impact of the acculturation process on consumer behavior. However, a number of pertinent observations and conclusions can be made regarding the underlying relationships among culture, acculturation, consumer behavior, and demographic characteristics.

This final chapter consists of three sections. The first section briefly summarizes the research methodology and the major findings in order to show succinctly the more important developments of the study. The second section presents the conclusions and implications that appear relevant to marketing, and the third contains the author's final comments concerning both the significance of the research and the areas that warrant further examination, but which were beyond the scope of the present investigation.

Summary

Concepts from cultural anthropology (occulturation) and marketing (consumer behavior) provided the theoretical framework for this investigation. A standardized questionnaire consisting of two recognized measures of global acculturation, and two research instruments constructed especially for this study, was used to obtain empirical data for exploring the relationships between acculturation and consumer behavior. The two measures of global acculturation were the Stick Figures Test (Sarbin and Hardyck, 1955) and the Modified Campisi Scale (Campisi, 1947). Item analysis procedures were employed in developing a reliable and valid instrument for measuring the degree of consumer acculturation. The final form of the Consumer Acculturation Test contained 36 items and had a reliability coefficient of 0.80 (internal-consistency). A second research instrument developed especially for this investigation was the Demographic Data Sheet. The DDS provided a data base for comparing and contrasting the sample respondents. The four research instruments were integrated into a single standardized questionnaire to facilitate field research among foreign and American students at the University of Florida.

Three statistical procedures were employed in analyzing and interpreting the data. Preliminary analysis of the data using stepwise multiple regression methods indicated that acculturation, consumer purchasing patterns, and demographic characteristics were systematically related. Statistically significant relationships were found between the degree of global acculturation and the degree of consumer acculturation. Similar relationships also were found between several demographic variables and the extent of global and/or consumer acculturation. For example, use of the two measures of global acculturation (SFT and MCS) as predictor variables

for the CAT (criterion variable) resulted in a correlation coefficient ( $R$ ) of 0.635 ( $R^2 = 0.403$ ), significant above the 0.01 level. Moreover, type of country (progressive or nonprogressive) was a strong predictor variable for the CAT ( $R^2 = 0.376$ ) and the MCS ( $R^2 = 0.388$ ), and fairly good for the SFT ( $R^2 = 0.212$ ); the three relationships were significant beyond the 0.01 level. Other useful predictor variables were length of time in the U.S., age, expressing Christianity, geographic mobility, and having an American roommate.

A more extensive investigation of fundamental cultural and behavioral constructs was carried out during the second and third phases of the analysis of data. First, factor analytic techniques were employed to identify and define the underlying global and consumer acculturation dimensions. Identification of these dimensions not only enabled a more meaningful interpretation, it also served to highlight the culturally determined behavioral patterns.

In the third phase canonical correlation was used to examine and assess the nature as well as the strength of the relationships between demographic characteristics (predictor variables) and underlying global and/or consumer acculturation dimensions (criterion variables). Five statistically significant canonical functions (above 0.052) were extracted; the canonical roots ( $R^2$ ) ranged from 0.71 (first function) to 0.31 (fifth function). When the nature of the relationships was examined, it was apparent that type of country (progressive or nonprogressive), length of time in the U.S., father's occupation (white collar or blue collar), and whether respondents had brothers and/or sisters were strong predictor variables (loading  $\geq 0.60$ ); while age, religion, and mobility were good predictor variables (loading  $\geq 0.50$ ). Other fairly good predictor variables were urban background, having an American roommate,

expecting to remain in the U.S. indefinitely, first born, and frequent exposure to television (loading  $\geq 0.33$ ). At the same time, the acculturation dimensions (criterion variables) most sensitive to these predictor variables were the Stick Figures Test, and the Foreign Food, Cultural Life Style and Acculturated Consumer factors (loading  $\geq 0.68$ ). The American Food and Purchasing Effort factors were fairly sensitive (loading  $\geq 0.57$ ); while the Assortment, Labor-Saving, Unacculturated Consumer, Shopping Habits, Merchandising, Branding, General, and Personal Expression factors were somewhat sensitive (loading  $\geq 0.34$ ).

In summary, the over-all findings of the multiple factor analysis and the canonical correlation were consistent with those demonstrated by the stepwise regressions. Additionally, the results provided further insight into the complex, multi-dimensional relationships between acculturation and consumer behavior.

### Conclusions and Implications

The acculturation process involves numerous cultural as well as socio-psychological transformations. Some of the changes in attitudes, behavioral patterns (consumer or otherwise), and perceptual norms were empirically explored in this investigation; the findings suggest a number of conclusions and implications relevant to marketing.

Culture is an evolutionary, adaptive process. When changes occur in the physical and social environment within which culture operates and has contact, it can be expected that cultural values, and hence culturally determined behavioral patterns, will also change. The process of cultural change, of which acculturation is but one expression, involves the transmission of cultural elements, and occurs when any two peoples are in historic contact (Herskovits, 1964, p. 174). Acculturation is

thus a complex, dynamic process during which the cultural configuration and behavior patterns of those undergoing acculturation are in a constant state of flux.

At the individual level, culture refers to attitudes, values, beliefs, and customary patterns of behavior; acculturation implies that the individual acquires new cultural elements (e.g., attitudes, values) which he integrates into his existing ones, the result being a new cultural configuration. Moreover, while cultural traits and patterns exist very plainly, individuals undergoing acculturation are selective in that they may accept completely, accept partially, or reject entirely these new forms of behavior.

A major objective of the present investigation was to explore the process of acculturation and its impact on consumer purchasing patterns. The final interpretation of the results of the study indicates that consumer behavior, as a subset of the multidimensional totality of human behavior, is clearly related to the acculturation process. It appears that global acculturation and consumer acculturation are parallel processes; however, it was not possible to determine conclusively whether the respondents were more acculturated globally, or in their behavior as consumers. There was some indication that the process of acquiring American perceptual modes, i.e., a predisposition to perceive the expressive and attitudinal states of others as Americans do, was somewhat slower than for other aspects of global and consumer acculturation. But it follows that this should be so since material objects generally are taken over earlier than nonmaterial characteristics (Berelson and Steiner, 1964, p. 652).

The findings suggest that cultural background was the most important variable influencing the degree of acculturation. Respondents from progressive countries,

i.e., cultures, tended to be more acculturated in their overall behavior, as well as in their consumer behavior. Several other significant indices of the extent of acculturation were environmental background (urban or rural), length of time in the U.S., age, religion, geographic mobility, and father's occupation (white collar or blue collar). It should be emphasized that statements concerning the extent of acculturation are relative only to the framework employed in the present study. Therefore, in concluding that, for example, respondents from progressive cultures were more acculturated, this refers only to how they compared with respondents from less progressive cultures, and does not represent an absolute measure of the degree of acculturation. Indeed, insights gained from the fieldwork indicated that even respondents from progressive cultures were not highly acculturated.

Evaluative behavior, i.e., selectivity, is influenced by the distinctive values of each culture and their configuration. Indeed, according to Herskovits (1964, p. 179), "selectivity accounts for the great variation in the degree to which peoples undergoing contact . . . take over elements of each other's culture." While the present study cannot be considered an end in itself, it appears reasonable to conclude that the relationships found between culture, acculturation, and consumer purchasing patterns can provide some insight, and perhaps suggest the direction for future research, into the problem of selectivity and its influence on consumer behavior. The results indicate further that willingness to accept change, i.e., selectivity, is influenced not only by a distinctive cultural heritage, but also by certain identifiable individual characteristics, such as religion, environmental background (urban or rural), and geographic mobility. It was illuminating that no significant difference was found between males and females. This may have been

a result of the makeup of the sample (68 percent males), or since education is an important influence on the rate of acculturation (Weinstock, 1964), the fact that all respondents were at the university level may have mitigated significant differences predicated on sex. Finally, there may have been other underlying influences unique to the sample used in this study that were responsible for this finding.

Cross-cultural studies have shown that the problems of people in varied cultures are quite similar. Therefore, it ought to be possible to find universals in dealing with consumption patterns (Engle, Kollat, and Blackwell, 1968, p. 255). While the consumer behavior dimensions identified in this study may not represent true cultural universals, it seems reasonable to conclude that a number of cultural constructs or common dimensions of consumer purchasing patterns were found which characterized a rather heterogeneous group of foreign students. The underlying covariance of many items around their respective acculturation factors, which was demonstrated by the factor analysis, provided preliminary evidence of the validity of these common dimensions. Additional support was gained through the canonical analysis, which indicated that some of the dimensions were useful in predicting the extent of acculturation.

As was expected, a number of these constructs were considerably stronger than others. For example, the Assortment, Labor-Saving, General, Purchasing Effort, and Acculturated Consumer factors from the CAT were all quite good; while the Branding, Merchandising, and Shopping Habits factors were fairly good. One of the rather surprising outcomes was that no systematic relationships were found with factor four--Type of Outlet. Although its factor structure was strong and clearly defined, it was not associated with any of the demographic variables included in the canonical

analysis. One explanation is that factor four was an invalid factor; another is that some variable other than those included in the present study may be related to this factor. It is also possible, however, that factor four was valid and the fact that no systematic relationships were found may mean simply that none (or all) of the respondents had difficulty adjusting to this dimension.

Another rather surprising result was that dimensions (factors) concerning credit and bargaining were not derived by the factor analysis. In the personal interviews with foreign students, as well as in the literature search, two of the most frequently mentioned differences between American and foreign marketing methods were those of credit and bargaining. An explanation for not finding differences regarding credit and bargaining may be that the questions included on the CAT concerning these two topics were invalid.<sup>1</sup> Another possibility is that attitudes regarding credit and bargaining cannot be assessed by direct questioning. Future research will have to answer this question, perhaps by using a somewhat different approach.

It may be useful to explore in more detail the implications of the relationships found between the demographic characteristics and the factor analytically derived and defined behavioral constructs (factors). The results showed that there were certain global and/or consumer dimensions on which different types of respondents displayed varying degrees of acculturation. For example, respondents with predominantly rural backgrounds, who were the first born child, and had brothers and/or sisters, tended to express a greater preference for a life style more similar to that of their heritage culture. In contrast, respondents with American roommates, who

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<sup>1</sup> As mentioned in Chapter II, difficulties with the topic of credit were encountered early, and entirely new credit questions had to be written for the revised CAT.

were frequently exposed to television programs and whose father's occupation was white collar, appeared to show a greater preference for American ways of having fun. Findings such as these suggest that a better understanding of the intricacies of global behavior, i.e., those common behavioral dimensions in which cultures are most receptive to change, would enable marketing men to make better decisions regarding which foreign markets can be most easily penetrated, and with what types of products.

The implications of the common constructs associated with consumer behavior also should be considered. First, the fact that a number of fundamental and meaningful dimensions of consumer purchasing patterns were identified indicates that the concept of cultural selectivity is applicable to consumer behavior. In other words, it suggests that the purchasing patterns of those individuals undergoing acculturation can be delineated on the basis of a number of common behavioral dimensions, each of which will differ in terms of the consumer's propensity to accept or reject different cultural patterns relative to a particular dimension. Furthermore, assuming that the concept of selectivity can be applied to these underlying consumer cultural patterns, then it would appear fruitful to identify the common behavioral constructs, and then to study the consumer's degree of resistance to change on each of these constructs. For example, the results of the present investigation seem to show that younger respondents from progressive countries (cultures) were least resistant to, or had less difficulty in adjusting to, changes in assortment, merchandising, and food habits, while they were more resistant to changes in aspects such as branding. There also seems to be some indication that older persons were more resistant to cultural changes, particularly in the types of food they ate.

The problem of cultural selectivity is present in every attempt to introduce, in a foreign market, a new idea, a new technique, or a new kind of product. In fact, this problem presents itself every time any new product is placed on the market; and marketing surveys represent an attempt to study the problem of selectivity, i.e., acceptance or rejection of changes (Herskovits, 1964, p. 194). The results of this study indicate that factor analytic techniques can be used to derive and define fundamental and meaningful dimensions of the multivariate domain of culturally determined consumer behavior. Furthermore, it appears that statistical analyses relating the identified behavioral constructs to other appropriate variables might be helpful in comprehending which cultural elements, i.e., purchasing patterns, marketing methods, are accepted most easily, and why. In short, a better understanding of selectivity and its impact on the transmission of cultural elements, between different national cultures as well as among subcultures within the same country, would be an important tool of competitive marketing. Knowledge of the basic differences, as well as similarities in the process of selectivity, as it relates to consumer behavior, would enable marketing men to develop more appropriate marketing mixes, and to devise specific marketing strategies to effectively meet the needs of a particular market segment, whether foreign or domestic.

The identification and interpretation of culturally determined consumer behavior patterns would be a valuable asset to the field of marketing. The present investigation represents only a beginning, however, and further research is necessary to more precisely define the common cultural dimensions of consumer behavior, and to facilitate empirical validation of these cultural constructs.

### Final Comments

This study has attempted to integrate concepts from two disciplines, cultural anthropology and marketing. The vastness and complexity of these two fields required that selective limitations be imposed on the scope of the study. A theoretical construct of cultural anthropology, the acculturation process, was abstracted for conceptualization and analysis. In addition, purchasing patterns were abstracted from the complex totality of consumer behavior to facilitate an operational empirical study. Since no unified theory of acculturation or purchasing patterns existed, normative judgements were made as to the relevancy of several multidisciplinary constructs. Taxonomic and methodological constraints also posed some problems. Notwithstanding its inherent limitations, the author believes that this empirical investigation constitutes an original and stimulating contribution to the burgeoning literature on marketing in general, and the cultural anthropological aspects of consumer behavior in particular.

Other avenues of research are suggested by the concepts and methods used in this study. Traditionally, consumer behavior generally was restricted to the economic activities of the consumer. More recently, marketing academicians and practitioners have turned to the behavioral sciences for concepts, theories, and methodologies to employ in studying consumer behavior. The present investigation emphasizes predominantly cultural anthropological parameters of consumer behavior, as manifested specifically in purchasing patterns. But additional areas of both domestic and international marketing, which might be improved by future cultural anthropological research, are product research and development programs, pricing policies, promotional campaigns, and distribution channels.

Perhaps the most logical extention of the present research would be to use the Consumer Acculturation Test under different circumstances. For example, a possible application of the CAT is with domestic ethnic groups, or sub-cultures. Among the most familiar sub-cultures in the U.S. is that of the Negro -- living primarily in ghetto, using a dialect, having definite black cultural traits, and being exposed through mass media to the dominant white American middle class culture. Conceptually speaking, the increasing number of Negroes moving from the ghettos into the middle class American society are undergoing cultural changes, i.e., acculturation. Thus, the CAT might be used to investigate this particular situation. Another possibility would be to use the CAT for studying the acculturation process of Cuban immigrants. In addition to using the CAT with domestic sub-cultures, additional tests should be made with foreign cultural groups, to facilitate improvements in the instrument as well as to further validate the common cultural constructs which characterize consumer behavior.

In summary, then, culture and acculturation represent fundamental constructs relevant to marketing and consumer behavior; i.e., man's cultural involvement is present and felt at all times, therefore, to a great extent, his behavior as a consumer is initially and continually a function of cultural phenomena. Although many significant aspects have been dealt with in this study, numerous other cultural and behavioral facets of the total consumer behavior dimension deserve an equal amount of attention.

**APPENDICES**

APPENDIX A  
DATA CONCERNING CONSTRUCTION  
OF THE  
CONSUMER ACCULTURATION TEST

**TABLE A-1**  
**ACCULTURATION FACTORS IDENTIFIED IN LITERATURE SEARCH**

<u>Institutional Factors</u>	<u>Product Attribute Factors</u>
(1) credit	(1) traditional product use
(2) bargaining	(2) product taste
(3) type of outlet	(3) product type
(4) store image	(4) labor-saving
(5) store services	(5) national origin of product
(6) terms of sale	(6) product warranties
(7) purchasing agent	(7) packaging
(8) standardization	(8) product quality & durability
(9) advertising	(9) unique product feature
(10) pricing	(10) prestige of product
(11) frequent changes	(11) product standardization
(12) convenience	(12) product brand
	(13) product name
	(14) product color
	(15) stylish products
	(16) product size

**TABLE A-2**  
**ACCULTURATION FACTORS OBTAINED FROM PERSONAL INTERVIEWS**

<u>Institutional Factors</u>	<u>Product Attribute Factors</u>
(1) shopping frequency	(1) length expects to use product
(2) merchandise assortment	(2) beverages consumed
(3) shopping enjoyment	(3) pre-packaging
(4) store displays	(4) product maintenance
(5) special sales & promotions	(5) package sizes
(6) sources of information	(6) ready-made vs. tailored clothes
(7) store procedures	(7) car ownership and use
(8) number of eating places	(8) private brands
(9) one-stop shopping	(9) foods eaten
(10) peddlers (door-to-door salesmen)	(10) artificial vs. real fibers
(11) trading stamps	(11) product prices
(12) store hours	(12) availability of products

TABLE A-3  
COMPOSITE ACCULTURATION FACTORS

Institutional Factors

- (1) Type of Outlet
- (2) Store Procedures  
(bargaining & credit)
- (3) Merchandise Assortment
- (4) Shopping Habits
- (5) Promotional & Merchondising Techniques

Product Attribute Factors

- (1) Labor-saving & Convenience
- (2) Packaging
- (3) Product Type
- (4) Product Characteristics
- (5) Product Names

Combined Institutional and Product Attribute Factors

- (1) Branding
- (2) Standardization
- (3) General

TABLE A-4  
MEANS AND STANDARD DEVIATIONS OF INDIVIDUAL ITEMS BY  
ACCULTURATION FACTOR OF PRELIMINARY FORM OF THE  
CONSUMER ACCULTURATION TEST

<u>Institutional Factors</u>			
<u>I. Type of Outlet</u>			
Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
1	3.95	0.759	1
6	2.80	1.005	Eliminated <sup>b</sup>
14	2.45	0.945	48
19	4.60	0.821	25
27	3.50	0.827	69
52	3.15	0.671	Eliminated
66	2.80	0.696	Eliminated
69	4.20	0.696	79
120	3.20	1.197	Eliminated
2 <sup>a</sup>	3.50	0.889	Eliminated
<u>II. Store Procedures (bargaining and credit)</u>			
Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
2	3.70	1.031	15
4	4.00	1.338	Eliminated
15	3.95	1.050	37
17	3.30	1.559	Eliminated
28	3.70	0.923	62
30	3.50	1.281	Eliminated
40	2.40	1.501	Eliminated
50	3.35	1.497	Eliminated
3 <sup>a</sup>	3.55	0.999	80
4 <sup>a</sup>	3.25	0.911	Eliminated
7 <sup>a</sup>	3.20	1.200	28
8 <sup>a</sup>	1.80	1.252	Eliminated

Table A-4 Continued

III. Merchandise Assortment

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
3	3.30	0.979	Eliminated
16	2.30	1.081	16
29	3.75	0.911	26
32	1.85	0.933	49
42	3.90	1.334	Eliminated
60	4.15	0.671	81
5 <sup>a</sup>	3.70	1.031	2
6 <sup>a</sup>	3.65	1.137	38
10 <sup>a</sup>	3.80	0.768	63

V. Shopping Habits

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
5	3.75	1.251	Eliminated
11	4.40	1.188	29
18	2.20	1.436	Eliminated
24	2.90	1.373	Eliminated
31	1.85	1.349	Eliminated
37	3.75	0.967	52
39	3.70	0.657	32
41	4.00	1.686	Eliminated
47	2.25	0.716	71
51	3.50	0.827	18
57	3.40	0.599	Eliminated
58	3.20	1.005	Eliminated
64	3.54	0.605	83
75	3.40	0.821	Eliminated
9 <sup>a</sup>	1.80	1.056	5
13 <sup>a</sup>	4.30	0.733	65
14 <sup>a</sup>	2.75	1.251	Eliminated
16 <sup>a</sup>	2.85	1.226	Eliminated

Table A-4 Continued

V. Promotional and Merchandising Techniques

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
9	2.15	0.587	7
10	2.70	1.081	Eliminated
22	2.75	0.786	Eliminated
23	3.35	1.424	Eliminated
35	2.80	0.696	Eliminated
36	3.75	0.786	54
45	1.50	0.688	20
46	1.65	0.671	72
55	1.90	0.788	31
56	2.95	0.887	Eliminated
63	2.00	0.726	85
71	2.65	0.875	Eliminated
123	3.30	0.923	Eliminated
124	2.95	1.468	Eliminated
125	3.70	1.174	42
129	4.50	1.192	67
13 <sup>a</sup>	2.10	0.852	Eliminated

Product Attribute FactorsI. Labor Saving and Convenience

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
79	2.50	1.000	9
85	2.15	0.745	33
91	3.40	1.353	Eliminated
97	2.50	0.946	44
101	2.85	1.040	Eliminated
17 <sup>a</sup>	2.60	1.095	Eliminated
18 <sup>a</sup>	3.35	1.349	Eliminated
19 <sup>b</sup>	2.50	0.759	56
20 <sup>a</sup>	2.35	1.200	74

Table A-4 Continued

VII. Packaging

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
80	2.40	1.143	10
86	2.65	0.988	Eliminated
92	3.55	1.146	22
98	2.30	0.801	34
102	2.40	0.681	45
105	2.20	0.894	57
108	2.60	1.095	Eliminated
113	3.50	0.889	75

VIII. Product Types

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
48	1.65	0.671	40
81	1.75	0.639	11
87	1.65	0.745	23
93	2.95	1.538	Eliminated
99	2.25	0.786	46
103	2.35	0.813	35
106	2.90	0.852	Eliminated
109	3.20	1.399	Eliminated
110	1.75	0.786	58
114	2.55	1.099	Eliminated
115	3.40	1.188	Eliminated
126	2.20	1.473	Eliminated
127	4.05	1.572	Eliminated

Table A-4 Continued

IX. Product Characteristics

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
82	2.75	0.851	Eliminated
83	2.15	0.813	77
88	2.80	1.240	Eliminated
89	3.40	1.046	Eliminated
94	3.65	1.040	12
95	2.65	0.671	Eliminated
100	2.55	1.050	Eliminated
104	3.00	0.795	Eliminated
107	2.95	0.605	Eliminated
111	1.85	0.671	36
112	2.85	0.813	Eliminated
116	2.50	1.164	59
122	4.75	0.911	61

X. Product Names

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
84	4.40	0.681	13
90	4.00	0.858	78
96	3.80	1.200	47
117	2.20	1.056	24
118	3.75	1.070	60

Table A-4 Continued

Combined FactorsXI. Branding

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
7	4.05	0.686	50
20	2.30	0.657	17
33	2.70	0.865	Eliminated
43	2.30	0.923	27
53	3.50	0.761	39
61	2.05	0.686	3
67	1.90	0.553	64
70	2.50	0.607	82
11 <sup>a</sup>	4.00	0.795	Eliminated

XII. Standardization

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
8	1.90	0.912	6
12	4.30	0.801	53
21	2.55	1.234	Eliminated
34	4.40	1.188	19
44	4.35	0.813	66
54	3.40	1.046	Eliminated
62	2.50	1.396	Eliminated
68	2.10	0.641	30
73	3.50	0.946	41
15 <sup>a</sup>	3.70	0.979	84

Table A-4 Continued

XIII. General

Item Number, Preliminary CAT	Mean	Standard Deviation	Item Number, Revised CAT
13	4.65	0.933	21
25	2.55	0.999	Eliminated
26	1.75	1.251	Eliminated
38	2.00	0.858	8
49	3.10	1.021	Eliminated
59	2.05	0.999	43
65	2.20	1.322	Eliminated
74	2.10	1.210	Eliminated
76	4.90	0.447	55
77	4.65	0.813	73
78	4.70	0.571	86
119	4.15	1.089	68
121	4.60	0.995	14
128	4.90	0.308	76
1 <sup>a</sup>	3.45	1.234	Eliminated

<sup>a</sup> These items were in Part II of the Preliminary CAT.

Items that did not have a standard deviation of  $\leq 1.200$ , and a mean of  $\leq 2.5$ , or  $\geq 3.5$ , were eliminated.

TABLE A-5

ITEM ANALYSIS PROCEDURE: INDEX OF DISCRIMINATION OF INDIVIDUAL ITEMS  
 BY ACCULTURATION FACTOR FOR REVISED FORM OF THE  
 CONSUMER ACCULTURATION TEST

## Institutional Factors

I. Type of Outlet

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination <sup>a</sup>	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
1	0.85	0.60	0.25	1b
25	0.90	0.70	0.20	Eliminated
48	0.80	0.50	0.30	19
69	0.85	0.55	0.30	32
79	0.65	0.45	0.20	Eliminated

II. Store Procedures (bargaining and credit)

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
4 <sup>c</sup>	0.50	0.30	0.20	2
15	0.50	0.35	0.15	Eliminated
28	0.65	0.40	0.25	8
37	0.65	0.45	0.20	13
51 <sup>c</sup>	0.50	0.45	0.05	Eliminated
62	0.55	0.40	0.15	Eliminated
70 <sup>c</sup>	0.55	0.50	0.05	Eliminated
80	0.55	0.40	0.15	Eliminated

Table A-5 Continued

III. Merchondise Assortment

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discriminotion	Item Number, Finol CAT
	Upper Criterion Group	Lower Criterion Group		
2	0.85	0.60	0.25	Eliminated
16	0.60	0.35	0.25	Eliminated
26	0.90	0.55	0.35	7
38	0.85	0.55	0.30	14 <sup>b</sup>
49	1.00	0.55	0.45	20
63	0.90	0.45	0.45	27
81	0.80	0.60	0.20	Eliminated

IV. Shopping Hobits

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discriminotion	Item Number, Finol CAT
	Upper Criterion Group	Lower Criterion Group		
5	0.80	0.55	0.25	3
18	0.55	0.30	0.25	6
29	0.85	0.70	0.15	Eliminated
32	0.80	0.35	0.45	10
52	0.65	0.40	0.25	22
65	0.95	0.80	0.15	Eliminated
71	0.80	0.60	0.20	Eliminated
83	0.75	0.55	0.20	Eliminated

Table A-5 Continued

V. Promotional and Merchandising Techniques

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
7	0.40	0.40	0.00	Eliminated
20	0.85	0.90	-0.05	Eliminated
31	0.70	0.55	0.15	9
42	0.90	0.80	0.10	Eliminated
54	0.55	0.40	0.15	24
67	0.80	0.65	0.15	30
72	0.85	0.85	0.00	Eliminated
85	0.90	0.85	0.05	Eliminated

Product Attribute FactorsVI. Labor Saving and Convenience

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
9	0.80	0.60	0.20	4 <sup>b</sup>
33	0.85	0.50	0.35	11
44	0.90	0.55	0.35	17
56	0.35	0.35	0.00	Eliminated
74	0.40	0.25	0.15	Eliminated

Table A-5 Continued

VII. Packaging

Item Number, Revised CAT	Proportion of Correct Responses			Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group	Index of Discrimination	
10	0.60	0.55	0.05	
22	0.55	0.50	0.05	
34	0.85	0.50	0.35	
45	0.65	0.60	0.05	
57	0.65	0.55	0.10	
75	0.85	0.50	0.35	

VIII. Product Types

Item Number, Revised CAT	Proportion of Correct Responses			Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group	Index of Discrimination	
11	0.70	0.55	0.15	Eliminated
23	0.60	0.60	0.00	Eliminated
35	0.65	0.50	0.15	Eliminated
40	0.75	0.50	0.25	15
46	0.75	0.50	0.25	18
58	0.60	0.55	0.05	Eliminated

Table A-5 Continued

IX. Product Characteristics

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
12	0.65	0.50	0.15	5
36	0.85	0.80	0.05	Eliminated
59	0.75	0.65	0.10	Eliminated
61	1.00	0.80	0.20	26
77	0.90	0.85	0.05	Eliminated

X. Product Names

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
13	0.65	0.55	0.10	Eliminated
24	0.50	0.50	0.00	Eliminated
47	0.65	0.55	0.10	Eliminated
60	0.95	0.50	0.45	25
78	0.55	0.35	0.20	Eliminated

Table A-5 Continued

Combined FactorsXI. Branding

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
3	0.70	0.65	0.05	Eliminated
17	0.75	0.55	0.20	Eliminated
27	0.50	0.35	0.15	Eliminated
39	0.70	0.50	0.20	Eliminated
50	0.95	0.55	0.40	21
64	0.95	0.60	0.35	28
82	0.55	0.30	0.25	35 <sup>b</sup>

XII. Standardization

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
6	0.65	0.70	-0.05	Eliminated
19	0.95	0.75	0.20	Eliminated
30	0.55	0.40	0.15	Eliminated
41	0.75	0.40	0.35	16
53	0.85	0.60	0.25	23 <sup>b</sup>
66	0.80	0.40	0.40	29
84	0.85	0.70	0.15	Eliminated

Table A-5 Continued

XIII. General

Item Number, Revised CAT	Proportion of Correct Responses		Index of Discrimination	Item Number, Final CAT
	Upper Criterion Group	Lower Criterion Group		
8	0.30	0.55	-0.25	Eliminated
14	0.85	0.75	0.10	Eliminated
21	0.95	0.90	0.05	Eliminated
43	0.75	0.55	0.20	Eliminated
55	1.00	1.00	0.00	Eliminated
68	0.85	0.60	0.25	31
73	0.85	0.75	0.10	Eliminated
76	0.95	0.70	0.25	34
86	0.95	0.70	0.25	36

The index of discrimination is obtained by calculating the difference between the proportion of correct responses in the upper criterion group, and the proportion of correct responses in the lower criterion group.

These items were added to the original 31 to increase the total number of test items to 36.

These are the new credit items which were written to replace those eliminated in the pre-test of the preliminary CAT.

**PRELIMINARY FORM  
CONSUMER ACCULTURATION TEST**

Part I

Place a check mark in one of the five columns to show how you feel about the following questions.

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
1. Shopping in self-service stores is difficult and confusing.					
2. When I shop, I feel better if I can bargain about the price of a product.					
3. When I shop, the large variety of merchandise makes product choice difficult.					
4. I prefer to make my purchases on credit.					
5. I buy perishable foods in small quantities and on a day-to-day basis.					
6. I purchase items at convenience (7-11) stores.					
7. When I shop, I get confused because there are so many different brands to choose from.					
8. The availability of standard size products makes shopping easier.					
9. Advertisements are a good source of product information.					
10. The large number of merchandise sales held by stores means that, when these stores are not having a sale, they frequently charge prices which are too high.					
11. It seems strange to me to see men and women shopping together in a supermarket.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
12. It seems strange to me that products, prices, packages, and promotion change so much.					
13. I like unchilled (room temperature) drinks, such as coke, just as much as chilled (cool) drinks.					
14. Shopping in self-service stores is pleasant and enjoyable.					
15. I do not like it when a seller (store) list one price and refuses to sell a product if you offer less.					
16. The large variety of merchandise available in stores makes shopping easier.					
17. I prefer to use credit when making major purchases.					
18. I buy non-perishable foods in large enough quantities to last for a week or more.					
19. Whenever possible, I prefer to make purchases from door-to-door salesmen (peddlers).					
20. When I shop for groceries, I buy well-known, national brands.					
21. I prefer to shop in stores which sell products in standardized sizes, shapes, and quality.					
22. Advertisements help me to decide which products to buy.					
23. I prefer to shop at stores which give trading stamps.					
24. It seems strange to me to see children shopping alone (without a parent).					
25. I get my information about products or stores from my American friends.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
26. I prefer cola drinks that have ice in them.					
27. I do not like to shop in self-service stores because there are so few salesmen to help you in making purchases.					
28. Shopping is more fun when I can bargain with the salesman about the price of a product.					
29. Shopping is difficult when a store carries a large assortment of different types of merchandise.					
30. When using credit to purchase expensive products, I am more concerned about the amount of the monthly installment payment, than about the total cost.					
31. When buying groceries, I purchase enough to last for a week or more.					
32. I prefer to make my purchases at large stores with many types of merchandise.					
33. When I shop for groceries, I buy private brands.					
34. The yards-feet-inches system of measurement is confusing to me.					
35. Advertisement help me to decide which stores to shop at.					
36. I prefer to shop at stores which have special sales contests or coupons.					
37. Men are more important than women in the buying process for consumer goods.					
38. I get most of my information about products or stores from friends who are of my own nationality.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
39. I spend a great deal of time in planning my purchases.					
40. When using credit to purchase expensive items, I am more interested in the total cost, than in the amount of the monthly installment payment.					
41. I purchase groceries on a day-to-day basis, instead of for the entire week.					
42. I prefer to make my purchases at smaller stores which have only a few types of products.					
43. When I shop for merchandise other than groceries, I buy well-known national brands.					
44. I find that shopping is easier and simpler when items are measured by the metric system.					
45. Advertising is necessary for success in business.					
46. I prefer advertisements that show the practical advantages of a product.					
47. Women can be very helpful in deciding which product to buy.					
48. When I purchase expensive items, I expect to use them for many years.					
49. I spend a great deal of time in budgeting my money.					
50. I use credit to make minor purchases such as gas and clothing.					
51. I visit many stores, comparing price and quality, before making a purchase.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
52. I prefer to make my purchases at stores which offer much personal service.					
53. When I shop for merchandise other than groceries, I buy private brands.					
54. The wide variety of sizes, and the many different weights, makes shopping for consumer products difficult and confusing.					
55. Stores which give trading stamps charge higher prices than stores which do not give stamps.					
56. I prefer advertisements that are entertaining, even if they do not have information which helps me in making product choices.					
57. Men are more important than women in choosing which products to buy.					
58. When I purchase expensive items, I expect to use them for a few years and then to buy newer, more modern ones.					
59. All people should very carefully budget their money.					
60. I prefer to make my purchases at stores which sell only one type of merchandise.					
61. My knowledge of various brands helps me to decide which products to buy.					
62. When purchasing fresh vegetables, I prefer that they be kept in loose containers so that amounts can be weighed out at the time of sale.					
63. I prefer advertisements which are very informative.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
64. The role of men in the buying process is more important than the role of women.					
65. Large refrigerators are necessary so that you will be able to cool not only frozen foods and perishable foods, but also other items not requiring refrigeration such as margarine, mayonnaise, and bottled drinks.					
66. I prefer to shop at self-service stores offering few services.					
67. Brand names are good indicators of product quality.					
68. Standardization of products and methods results in lower prices.					
69. I prefer to shop at stores which deliver merchandise to your home.					
70. It is much better to buy only products which have a well-known brand name.					
71. I prefer advertisements which have good slogans.					
72. The opinions of men and women are about equally important in shopping for products.					
73. The wide variety of sizes, and the many different weights, are very confusing to me when shopping.					
74. All people should put some of their money in savings.					
75. Men are more important than women in choosing which store to shop at.					
76. It seems strange to me to see people using shopping carts in supermarkets.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
77. It seems strange to me to see people waiting in line at supermarkets to pay for their groceries at a checkout counter.					
78. It seems strange to me to see bogboys carrying groceries out in a supermarket.					
79. Instant or "quick-" fix products, such as coffee or cake mixes, are a good substitute for the "real" thing.					
80. Frozen vegetables taste better than canned vegetables.					
81. I buy products that are typically American.					
82. I buy same products because they are fashionable.					
83. When I shop, durability is an important factor.					
84. I purchase products because they have exotic sounding names.					
85. It is all right for a housewife to serve instant foods, or to prepare cakes with instant cake mixes.					
86. I prefer to buy prepackaged foods, such as meat and vegetables.					
87. I buy mostly American type products.					
88. I like to purchase stylish products.					
89. I buy products because they are status symbols or prestigious.					
90. I buy products because they are associated with exciting or exotic places.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
91. When a house wife does not have time to cook a meal, it is all right for her to serve pre-cooked foods, such as TV dinners.					
92. Shopping for fresh vegetables is easier if they are prepackaged.					
93. I prefer margarine instead of butter.					
94. I like to purchase do-it-yourself kits.					
95. I prefer traditional types and styles of products.					
96. I have difficulty in buying certain products because I do not know their American name.					
97. It is all right for housewives to use labor-saving devices and quick-fix foods.					
98. I prefer modern, stylish packages.					
99. My choice of some products is based on how convenient it is to purchase them.					
100. I prefer plain, economical products.					
101. Spending an hour or more preparing homemade cakes and pies seems ridiculous when instant cake and pie mixes can be used which take only a few minutes.					
102. I prefer to buy products which are packaged individually.					
103. When I am thirsty, I drink either fruit juices or cola drinks.					
104. I prefer simple products with few accessories.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
105. Products sold in multiple packs are cheaper than those sold in individual packs.					
106. When I am thirsty I drink water.					
107. I prefer deluxe items with all accessories, instead of simple items with few accessories.					
108. I prefer to buy products in bright colored packages.					
109. I drink milk with my meals.					
110. Children should drink milk with their meals.					
111. Proof of product quality is very important in making purchases.					
112. Manufacturers sell inferior quality products.					
113. When I shop, the large number of package sizes makes it difficult to choose the best size.					
114. I drink tea or coffee with my meals.					
115. I drink a cold drink with my meals.					
116. I prefer to buy unprocessed foods because I get a higher quality product.					
117. A product's name is a good indication of its quality.					
118. When shopping I get confused by the large number of products with similar names.					
119. I eat a large meal at lunch and have a small meal in the evening.					

	Almost Always	Often	Occasion- ally	Rarely	Almost Never
120. Fresh vegetables should be sold in an open air municipal market.					
121. It seems strange that so many people drive cars to work.		.			
122. It seems strange that so many people own a car.					
123. Television programs should be interrupted by commercial advertisements.					
124. All television commercial advertisements should be shown at one time, either before or after a show.					
125. It seems strange for so many commercial advertisements to be given on the radio.					
126. I like to eat french fries (chips) with ketchup on them.					
127. I prefer something other than ketchup on my french fries (chips).					
128. It seems strange to eat bacon and eggs for breakfast.					
129. It seems strange that advertisements are not shown in movie theatres (cinemas).					

## CONSUMER ACCULTURATION TEST

## Part II

Place a check mark in one of the five columns to show the extent to which you agree or disagree with the following statements.

	Strongly Agree	Agree	No Preference	Disagree	Strongly Disagree
1. It seems strange that there are so many hamburger stands and sandwich shops.					
2. I do not like to shop in self-service stores because there are so few salesmen to help you in making purchases.					
3. I do not like it when a seller (store) lists one price and refuses to change except for a special sale.					
4. When I shop, I feel better if I can bargain about the price of a product.					
5. When I shop the large variety of merchandise makes product choice difficult.					
6. I sometimes become confused by the large variety of products in a store.					
7. When using credit to purchase expensive products, I am more concerned about the amount of the monthly installment payment, than about the total cost.					
8. I prefer to make most of my purchases with cash.					
9. When buying groceries, I purchase enough to last a week or more.					
10. I prefer to make my purchases at smaller stores which sell only a few types of products.					
11. When I shop, I get confused because there are so many different brands to choose from.					

	Strongly Agree	Agree	No Preference	Disagree	Strongly Disagree
12. Stores which give trading stamps charge higher prices than stores which do not give stamps.					
13. It seems strange to me to see men and women shopping together in a department store.					
14. The opinions of men and women are about equally important in shopping for products.					
15. It seems strange to me that companies often make small changes in their products or packages.					
16. When I purchase expensive items, I expect to use them for a few years and then buy newer, more modern ones.					
17. Electric toothbrushes should be used in cleaning teeth.					
18. Canned soups taste almost as good as homemade soups.					
19. Electric carving knives are better for cutting meat than regular knives.					
20. Electric toothbrushes clean a person's teeth better than hand toothbrushes.					

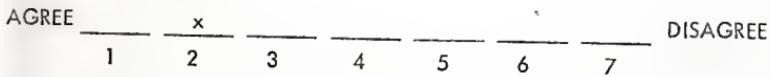
REVISED FORM  
CONSUMER ACCULTURATION TEST

Directions

This survey consists of a number of statements. Please indicate the extent to which you agree or disagree with each statement by placing an X on the appropriate blank in the scale that follows each statement. An example of a statement is shown below:

"The wide variety of sizes, and the many different weights, makes shopping for consumer products difficult and confusing."

A person who tends to agree with this statement might mark the scale in the following way:



Please proceed to the next page and begin with the questions.

(1) Shopping in self-service stores is difficult and confusing.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(2) When I shop, the large variety of merchandise makes product choice difficult.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(3) My knowledge of various brands helps me to decide which products to buy.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(4) It seems unusual (strange) to me to make purchases on credit (buy now, pay later).

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(5) When buying groceries, I purchase enough to last for a week or more.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(6) The availability of standard size products makes shopping easier.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(7) Advertisements are a good source of product information.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(8) I get most of my information about products or stores from friends who are of my own nationality.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(9) Instant or "quick-fix" products, such as coffee or cake mixes, are a good substitute for products made from "scratch."

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(10) Frozen vegetables taste better than canned vegetables.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(11) I buy products that are typically American.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(12) I like to purchase do-it-yourself kits.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(13) I purchase products because they have exotic sounding names.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(14) It seems unusual (strange) that so many people drive cars to work.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(15) When I shop, I feel better if I can bargain about the price of a product.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(16) The large variety of merchandise available in stores makes shopping easier.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(17) When I shop for groceries, I buy well-known, national brands ("National brands" are those owned by a manufacturer. For example, Campbell's soups is a national brand.)

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(18) I visit many stores, comparing price and quality, before making a purchase.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(19) The yards-feet-inches system of measurement is confusing to me.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(20) Advertising is necessary for success in business.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(21) I like drinks such as Coke unchilled (room temperature) just as much as I like them chilled (cooled).

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(22) Shopping for fresh vegetables is easier if they are pre-packaged.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(23) I buy mostly American type products.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(24) A product's name is a good indication of its quality.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(25) Whenever possible, I prefer to make purchases from door-to-door salesmen (peddlers).

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(26) Shopping is difficult when a store carries a large number of different types of merchandise.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(27) When I shop for merchandise other than groceries, I buy well-known, national brands.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(28) When using credit (buy now, pay later) to purchase expensive products, I am more concerned about the amount of the monthly installment payment, than about the total cost of the product.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(29) It seems unusual (strange) to me to see men and women shopping together in a supermarket.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(30) Standardization of products and methods results in lower prices.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(31) Stores which give trading stamps charge higher prices than stores which do not give stamps.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(32) I spend a great deal of time in planning my purchases.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(33) It is all right for a housewife to serve instant foods, or to prepare cakes with instant cake mixes.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(34) I prefer to purchase products that are sold in modern, stylish packages.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(35) When I am thirsty, I drink either fruit juices or cola drinks.

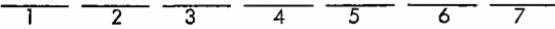
AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(36) Proof of product quality is very important in making purchases.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
 1      2      3      4      5      6      7

(37) I do not like it when a seller (store) lists one price and refuses to sell a product if you offer to pay less.

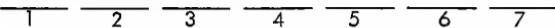
AGREE



DISAGREE

(38) I sometimes become confused by the large variety of products in a store.

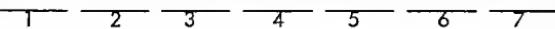
AGREE



DISAGREE

(39) When I shop for merchandise other than groceries, I buy private brands.  
("Private brands" are brands that are designed especially for, and owned by  
retailers and wholesalers. For example, Sears, Roebuck and Company sells  
merchandise under private brands made especially for them.)

AGREE



DISAGREE

(40) When I purchase expensive items, I expect to use them for many, many years,  
perhaps even the rest of my life.

AGREE



DISAGREE

(41) The wide variety of sizes, and the many different weights, are very confusing  
to me when shopping.

AGREE



DISAGREE

(42) It seems unusual (strange) for so many commercial advertisements to be given  
on the radio.

AGREE



DISAGREE

(43) All people should carefully budget their money.

AGREE



DISAGREE

(44) It is all right for housewives to use labor-saving devices and "quick-fix"  
foods.

AGREE



DISAGREE

(45) I prefer to buy products which are packaged individually.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(46) My choice of some products is based on how convenient it is to purchase them, even if I have to pay more.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(47) I have difficulty in buying certain products because I do not know their American name.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(48) Shopping in self-service stores is pleasant and enjoyable.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(49) I prefer to make my purchases at large stores with many types of merchandise.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(50) When I shop, I get confused because there are so many different brands to choose from.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(51) It is all right to make minor purchases on credit (buy now, pay later).

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(52) Men are more important than women in the buying process for consumer goods.  
(Consumer goods are products bought by a person for his own use.)

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(53) It seems unusual (strange) to me that products, prices, packages, and advertising change so frequently.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(54) I prefer to shop at stores which have special sales, contests, or coupons.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(55) It seems unusual (strange) to me to see people using shopping carts in supermarkets.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(56) Electric carving knives are better for cutting meat than regular hand knives.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(57) Products sold in multiple packs (more than one) are cheaper than products sold in individual packs.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(58) Children should drink milk with all of their meals.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(59) I prefer to buy unprocessed foods because I get a higher quality product.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(60) When shopping I get confused by the large number of products with similar names.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(61) It seems unusual (strange) that so many people own a car.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(62) Shopping is more fun when I can bargain with the salesman about the price of a product.

AGREE	<hr/>	1	2	3	4	5	6	7	DISAGREE
-------	-------	---	---	---	---	---	---	---	----------

(63) I prefer to make my purchases at smaller stores which have only a few types of products.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(64) Brand names are good indicators of product quality.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(65) It seems unusual (strange) to me to see men and women shopping together in a department store.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(66) I find that shopping is easier and simpler when items are measured by the metric system.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(67) It seems unusual (strange) that advertisements are not shown in movie theaters (cinemas).

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(68) I eat a large meal at lunch and have a small meal in the evening.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(69) I do not like to make purchases in self-service stores because there are so few salesmen to help you in making purchases.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(70) It is all right to use credit (buy now, pay later) to make minor purchases, such as gas for automobiles.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(71) Women can be very helpful in deciding which product to buy.

AGREE	_____	DISAGREE
	1      2      3      4      5      6      7	

(72) I prefer advertisements that show the practical advantages of a product.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(73) It seems unusual (strange) to me to see people waiting in line at supermarkets to pay for their groceries at a check-out counter.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(74) Electric toothbrushes clean a person's teeth better than hand toothbrushes.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(75) When I shop, the large number of package sizes makes it difficult to choose the best size.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(76) It seems unusual (strange) to eat bacon and eggs for breakfast.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(77) When I make purchases, product durability is a very important factor.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(78) I sometimes buy products because they are associated with exciting or exotic places.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(79) I prefer to shop at stores which deliver merchandise to your home.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(80) I do not like it when a seller (store) lists one price and refuses to change except for a special sale.

AGREE	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	DISAGREE
	1      2      3      4      5      6      7	

(81) I prefer to make my purchases at stores which sell only one type of merchandise.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

(82) It is much better to buy only products which have a well-known brand name.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

(83) The role of men in the buying process is more important than the role of women.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

(84) It seems unusual (strange) to me that companies often make small changes in their products and packages.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

(85) I prefer advertisements which are very informative.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

(86) It seems unusual (strange) to me to see bagboys carrying groceries out of a supermarket.

AGREE \_\_\_\_\_ DISAGREE \_\_\_\_\_  
1 2 3 4 5 6 7

APPENDIX B  
THE STANDARDIZED QUESTIONNAIRE

### CONSUMER OPINION SURVEY

The following set of questions is part of a study being conducted at the University of Florida on the opinions that people have about a number of topics. Information about your opinions on these topics will make a valuable contribution to the study. There are four parts to the survey. Please complete part I before going on to part II. Then, complete part II before going on to part III, and do part IV last. After you have completed all four parts, do not go back and change any of your answers. The survey will take approximately 40 minutes to complete. Your opinions will be kept completely confidential and will not be identified with you in any way.

Do not put your name on the questionnaire. For the purposes of this study it does not matter who you are, but it is very important that you answer all questions with complete frankness and honesty. Results will be grouped and no individual will be identifiable.

There are no right or wrong answers to the questions. The purpose of the study will be served best if you give your actual opinion and feelings on each question. Your own personal opinions are important to the study. So please work independently and do not check with any other person. Do your best to answer every question as though the problem is really important to you.

Please proceed to the next page and begin with part I of the survey.

Thank you for your cooperation.

Part I  
STICK FIGURES TEST

Directions

A number of stick figures, representing people in various postures, are contained in the booklet for part I. Each figure is numbered, corresponding to a number on the answer sheet for part I. For the corresponding number on the answer sheet for part I, there is a list of 5 words, plus a 6th space which is left blank. For each figure in the booklet, you are to check the word which you think best describes your impression of that figure. If you feel that none of the words on the list adequately describes your impression of the figure, then write what you consider to be the best description in the space which is left blank. Work quickly giving your first impression of what you think best describes each stick figure.

## Part I

STICK FIGURES TEST  
ANSWER SHEET(1) FIGURE 1

Do you see this figure as:

thoughtful \_\_\_\_\_

worried \_\_\_\_\_

tired \_\_\_\_\_

disgusted \_\_\_\_\_

relaxed \_\_\_\_\_

\_\_\_\_\_

(4) FIGURE 4

worried \_\_\_\_\_

impatient \_\_\_\_\_

tired \_\_\_\_\_

thinking \_\_\_\_\_

patient \_\_\_\_\_

\_\_\_\_\_

(2) FIGURE 2

curious \_\_\_\_\_

athletic \_\_\_\_\_

window peeker \_\_\_\_\_

alert \_\_\_\_\_

awkward \_\_\_\_\_

\_\_\_\_\_

(5) FIGURE 5

drunk \_\_\_\_\_

depressed \_\_\_\_\_

sleeping \_\_\_\_\_

anxious \_\_\_\_\_

exhausted \_\_\_\_\_

\_\_\_\_\_

(3) FIGURE 3

asleep \_\_\_\_\_

sad \_\_\_\_\_

afraid \_\_\_\_\_

lazy \_\_\_\_\_

active \_\_\_\_\_

\_\_\_\_\_

(6) FIGURE 6

thoughtful \_\_\_\_\_

curious \_\_\_\_\_

puzzled \_\_\_\_\_

self-conscious \_\_\_\_\_

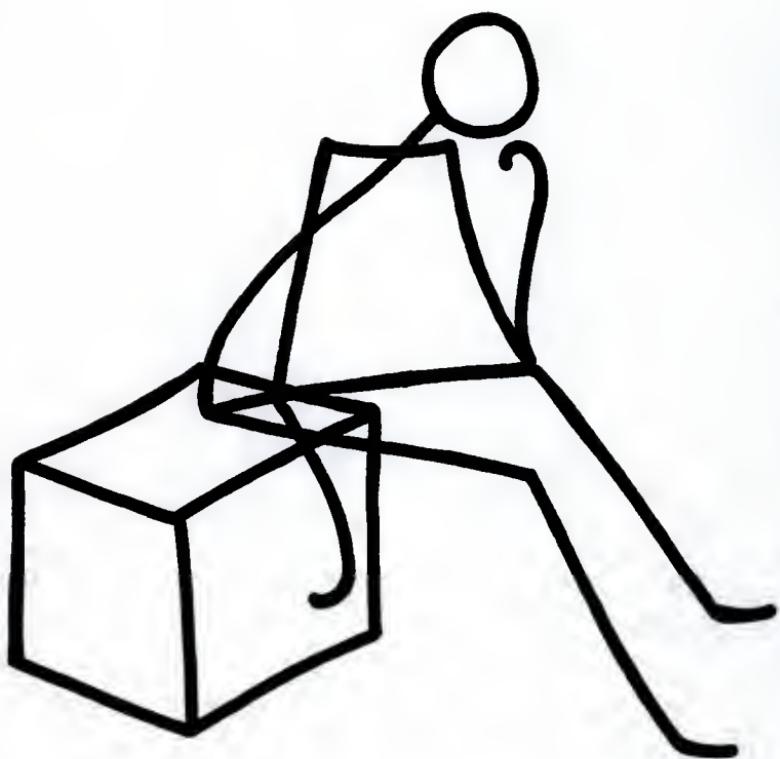
happy \_\_\_\_\_

\_\_\_\_\_

# PART 1

## STICK FIGURES BOOKLET

PLEASE DO NOT WRITE  
IN THIS BOOKLET

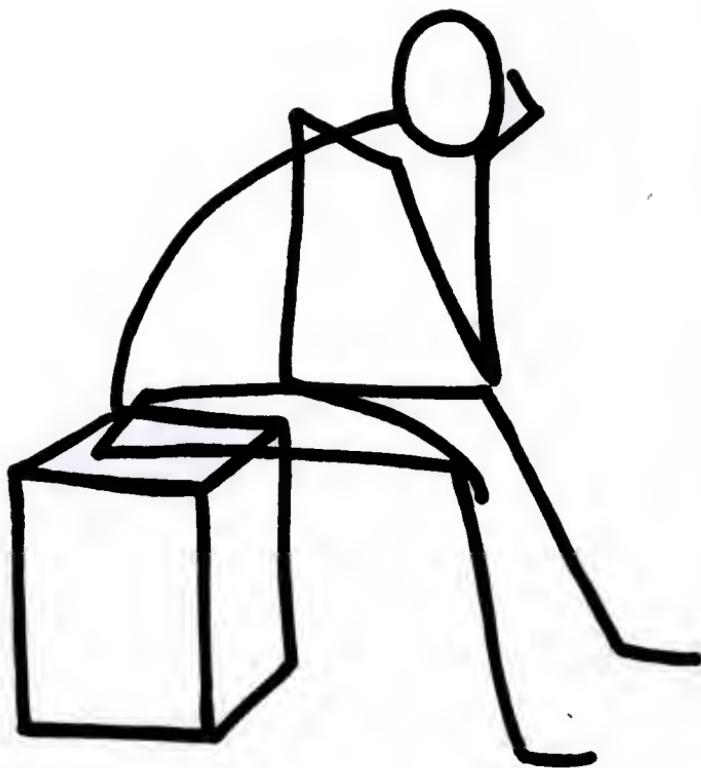


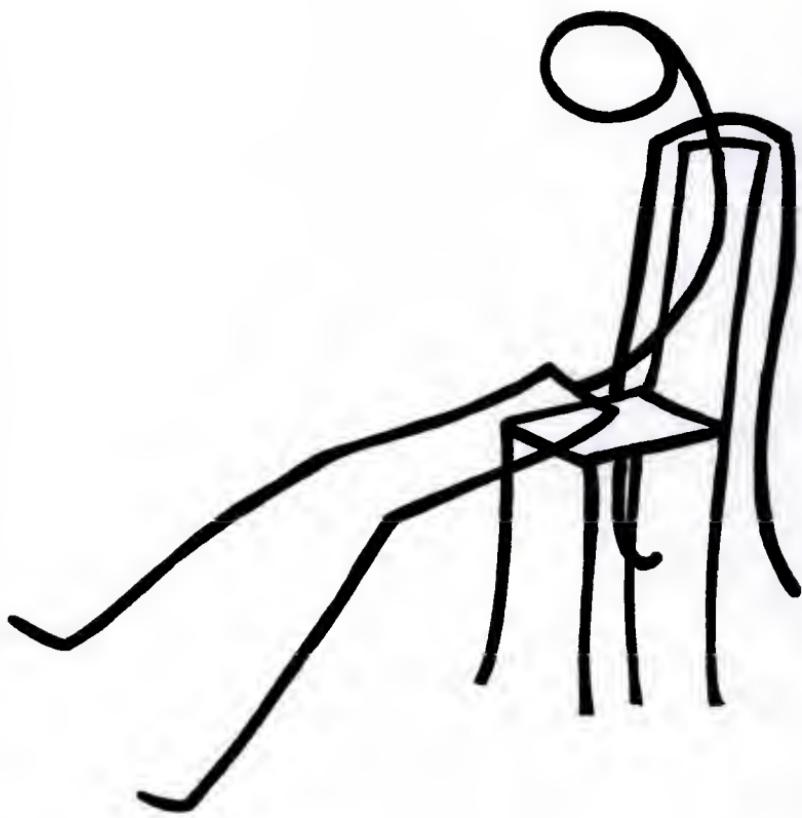
1



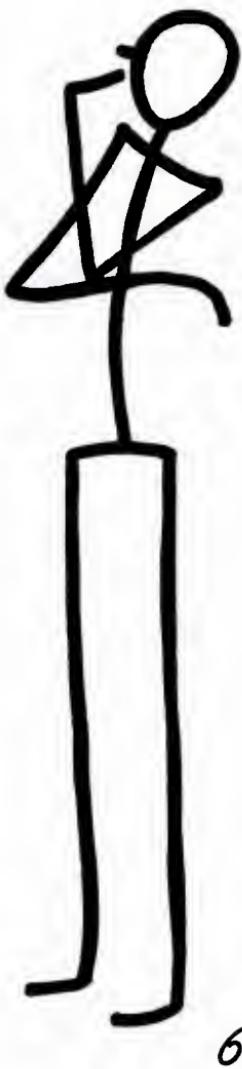
2







5



6

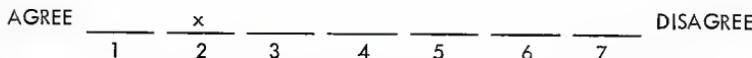
## FINAL FORM, CONSUMER ACCULTURATION TEST

Part II  
Directions

Part II consists of a number of statements. Please indicate the extent to which you agree or disagree with each statement by placing an X on the appropriate blank in the scale that follows each statement. An example of a statement is shown below:

"The wide variety of sizes, and the many different weights, makes shopping for consumer products difficult and confusing."

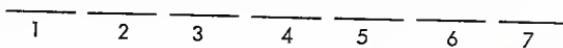
A person who tends to agree with this statement might mark the scale in the following way:



Please proceed to the next page and begin with the questions.

(1) Shopping in self-service stores is difficult and confusing.

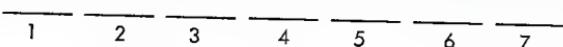
AGREE



DISAGREE

(2) It seems unusual (strange) to me to make purchases on credit (buy now, pay later).

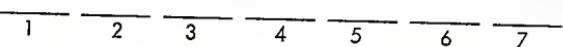
AGREE



DISAGREE

(3) When buying groceries, I purchase enough to last for a week or more.

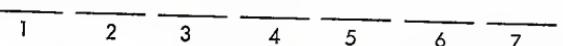
AGREE



DISAGREE

(4) Instant or "quick-fix" products, such as coffee or cake mixes, are a good substitute for products made from "scratch." (Making coffee from "scratch" means that you start with whole coffee beans, grind them in a coffee mill, and then use them to make your coffee.)

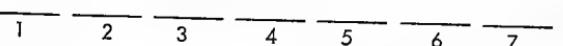
AGREE



DISAGREE

(5) I like to purchase do-it-yourself kits.

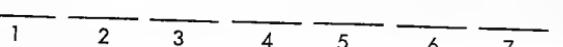
AGREE



DISAGREE

(6) I visit many stores, comparing price and quality, before making a purchase.

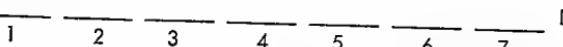
AGREE



DISAGREE

(7) Shopping is difficult when a store carries a large number of different types of merchandise.

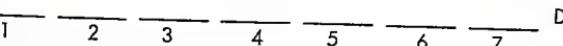
AGREE



DISAGREE

(8) When using credit (buy now, pay later) to purchase expensive products, I am more concerned about the amount of the monthly installment payment, than about the total cost of the product.

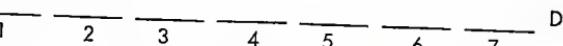
AGREE



DISAGREE

(9) Stores which give trading stamps charge higher prices than stores which do not give stamps.

AGREE



DISAGREE

(10) I spend a great deal of time in planning my purchases.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(11) It is all right for a housewife to serve instant foods, or to prepare cakes with instant cake mixes.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(12) I prefer to purchase products that are sold in modern, stylish packages.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(13) I do not like it when a seller (store) lists one price and refuses to sell a product if you offer to pay less.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(14) I sometimes become confused by the large variety of products in a store.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(15) When I purchase expensive items, I expect to use them for many, many years, perhaps even the rest of my life.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(16) The wide variety of sizes, and the many different weights, are very confusing to me when shopping.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(17) It is all right for housewives to use labor-saving devices and "quick-fix" foods.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(18) My choice of some products is based on how convenient it is to purchase them, even if I have to pay more.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(19) Shopping in self-service stores is pleasant and enjoyable.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(20) I prefer to make my purchases at large stores with many types of merchandise.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(21) When I shop, I get confused because there are so many different brands to choose from.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(22) Men are more important than women in the buying process for consumer goods.  
(Consumer goods are products bought by a person for his own use.)

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(23) It seems unusual (strange) to me that products, prices, packages, and advertising change so frequently.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(24) I prefer to shop at stores which have special sales, contests, or coupons.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(25) When shopping I get confused by the large number of products with similar names.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(26) It seems unusual (strange) that so many people own a car.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(27) I prefer to make my purchases at smaller stores which have only a few types of products.

AGREE		DISAGREE
	1 2 3 4 5 6 7	

(28) Brand names are good indicators of product quality.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(29) I find that shopping is easier and simpler when items are measured by the metric system.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(30) It seems unusual (strange) that advertisements are not shown in movie theaters (cinemas).

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(31) I eat a large meal at lunch and have a small meal in the evening.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(32) I do not like to make purchases in self-service stores because there are so few salesmen to help you in making purchases.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(33) When I shop, the large number of package sizes makes it difficult to choose the best size.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(34) It seems unusual (strange) to eat bacon and eggs for breakfast.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(35) It is much better to buy only products which have a well-known brand name.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

(36) It seems unusual (strange) to me to see bagboys carrying groceries out of a supermarket.

AGREE	<hr/>	DISAGREE						
	1	2	3	4	5	6	7	

## MODIFIED CAMPISI SCALE

## Part III

How often do you eat the following foods? In case you are forbidden to eat certain foods because of your health or religion, omit food items which you cannot have. Please place a check mark in one of the five columns to show how often you eat each of the categories of foods.

	(1) As Part of your regular diet	(2) About every two weeks	(3) About once a month	(4) About once in six weeks	(5) Almost never
1. American salads of all kinds, such as shrimp, gelatin, fruit and cottage cheese.					
2. Salads prepared according to the style of your nationality.					
3. American-style meats of all kinds, such as baked ham, and creamed chicken.					
4. Meats prepared and seasoned according to the style of your nationality.					
5. Desserts prepared according to the style of your nationality.					
6. American breakfast foods such as cornflakes, doughnuts, and cooked cereals.					
7. American vegetables of all kinds, such as scalloped corn, buttered peas, and buttered baked potatoes.					
8. Vegetables of all kinds prepared according to the style of your nationality.					
9. American beverages of all kinds, such as milk shakes, soda pop and iced tea.					

Have you ever wished your way of living to be different from what it is now? If you could have your way completely and no one would object, of what nationality, American, your own, or both, would you prefer the following usages and customs to be? Check all items even if you are satisfied with things as they are.

	I would wish this to be:				
	(1) Completely American	(2) Mostly American	(3) Both American and of my nation- ality	(4) Mostly of my nation- ality	(5) Completely of my nationality
10. Food					
11. Food seasonings					
12. Games of all kinds					
13. Holidays					
14. Your neighborhood					
15. Language					
16. Clubs and societies					
17. Songs					
18. Dances					
19. Books and magazines					
20. Radio programs					
21. Etiquette and good manners					
22. Gestures used in talking					
23. Way of teasing and joking					
24. Ways of having fun					

	I would wish this to be:				
	(1) Completely American	(2) Mostly American	(3) Both American and of my nation- ality	(4) Mostly of my nation- ality	(5) Completely of my nationality
25. Way of celebrating Christmas, New Years, and other holidays					
26. Spelling and pronunciation of your first name					
27. Ways of courtship					
28. Way members of a family behave toward each other					
29. Way of celebrating weddings, baptisms, and birthdays					

Part IV  
DEMOGRAPHIC DATA SHEET

Please complete the questions below by checking the appropriate spaces or filling in the blanks.

1. What is your age? \_\_\_\_\_
2. What is your sex?
  - (1) Male \_\_\_\_\_
  - (2) Female \_\_\_\_\_
3. Marital and Living Status (please indicate the appropriate category regardless of present legal classification).
  - (1) \_\_\_\_\_ Single (living alone, not sharing cooking and housekeeping with anyone)
  - (2) \_\_\_\_\_ Single (living with others, sharing cooking and housekeeping)
  - (3) \_\_\_\_\_ Married (living with a member of the opposite sex)
  - (4) \_\_\_\_\_ Other, please specify: \_\_\_\_\_
4. What is your religion? \_\_\_\_\_
5. What is the nationality background of the following persons?
  - (1) You (yourself) \_\_\_\_\_
  - (2) Your spouse (if you have one) \_\_\_\_\_
6. Do you have children?
  - (1) \_\_\_\_\_ Yes
  - (2) \_\_\_\_\_ No
7. If you have children how many? \_\_\_\_\_; and, what are their ages?  
\_\_\_\_\_

8. How long have you attended the University of Florida? \_\_\_\_\_

9. What is your college class?

(1) \_\_\_\_\_ Freshman

(2) \_\_\_\_\_ Sophomore

(3) \_\_\_\_\_ Junior

(4) \_\_\_\_\_ Senior

(5) \_\_\_\_\_ Graduate Student

(6) \_\_\_\_\_ Other, please specify: \_\_\_\_\_

10. What is your academic major? \_\_\_\_\_

11. If you are not a native of the United States, have you lived anywhere other than your native country, or the U.S.?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

12. If your answer to the preceding question was yes, please list the countries, the length of time you lived in each, and at what age.

Country

Length of Stay

Age

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

13. If you are not a native of the United States, how long do you expect to remain in the U.S.?

Please specify: \_\_\_\_\_

Do you expect to remain in the U.S. and ultimately become an American citizen?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

14. If you are not a native of the U.S., and you do intend to leave the U.S., do you expect to return to your native country when you leave the U.S.?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

15. If your answer to the above question was no, where do you expect to live?

Please specify: \_\_\_\_\_

16. Have you at any time during your life been a vegetarian; in other words, not eaten meat?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

17. If you have ever been a vegetarian, are you still a vegetarian?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

18. If at one time you were a vegetarian and you are no longer a vegetarian when did you change your diet to include meat?

(1) \_\_\_\_\_ Before coming to the U.S.

(2) \_\_\_\_\_ After coming to the U.S.

19. Do you have a working television set where you live?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

20. Do you have a working radio where you live?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

21. Do you read a newspaper regularly?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

22. Do you use a checking account?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

23. What is your father's occupation? If he is now retired, please give his occupation before he retired.

---

24. What was the highest level of education completed by your father? Please indicate the category which is equivalent to the following American classifications.

(1) \_\_\_\_\_ University (graduate level)

(2) \_\_\_\_\_ University (undergraduate level, received a degree)

(3) \_\_\_\_\_ Attended university, but did not receive degree

(4) \_\_\_\_\_ High School

(5) \_\_\_\_\_ Junior High School

(6) \_\_\_\_\_ Elementary School

25. Do you have any brothers and sisters?

(1) \_\_\_\_\_ Yes

(2) \_\_\_\_\_ No

26. If the answer to the preceding question was yes, please give the age and sex of each.

<u>Age</u>	<u>Male</u>	<u>Sex</u> <u>Female</u>
_____	_____	_____
_____	_____	_____

<u>Age</u>	<u>Male</u>	<u>Sex</u> <u>Female</u>
—	—	—
—	—	—
—	—	—

27. If you are single and living with other students, are these students (roommates) of your own nationality?

(1) \_\_\_\_\_ Yes  
 (2) \_\_\_\_\_ No

28. If your answer to the preceding question was no, please list the number of roommates who are not of your own nationality, and also, what their nationality is.

<u>Number</u>	<u>Nationality</u>
—	—
—	—
—	—

29. If you are not a native of the U.S., what kinds of areas within your own country, did you live in before you came to the U.S.? In other words, did you live in a large city, a medium-sized city, a small city, or in a rural or farm area. Please specify:

<u>Kind of Area</u>	<u>Length of Stay</u>	<u>Age</u>
—	—	—
—	—	—
—	—	—
—	—	—

30. If you are not a native of the United States, how long have you been in the U.S.? Please specify:

\_\_\_\_\_

APPENDIX C  
SUPPLEMENTARY DATA FROM THE  
STATISTICAL ANALYSES

TABLE C-1  
ORTHOGONAL FACTOR MATRIX<sup>a</sup> ROTATED TO VARIMAX CRITERION FOR  
THE MODIFIED CAMPISI SCALE

	1	2	3	4	5	6
1	0.049	0.113	0.599	-0.030	-0.023	-0.047
2	0.135	0.843	0.096	0.080	0.095	0.055
3	0.085	0.169	0.680	0.006	0.136	0.031
4	0.231	0.825	0.186	0.076	0.065	0.103
5	0.094	0.736	0.209	-0.047	0.114	-0.067
6	0.142	0.139	0.202	-0.002	0.147	0.523
7	-0.002	0.214	0.696	-0.122	0.155	0.215
8	0.186	0.854	0.188	-0.004	0.138	0.055
9	-0.056	-0.032	0.288	-0.385	0.113	-0.039
10	0.438	0.230	0.508	0.323	0.195	0.120
11	0.484	0.316	0.414	0.088	0.225	0.035
12	0.376	0.171	0.168	0.157	0.474	-0.060
13	0.653	0.086	0.031	0.144	0.190	-0.034
14	0.685	0.002	0.008	-0.038	0.060	0.301
15	0.665	0.114	0.131	0.067	0.107	0.092
16	0.672	0.039	0.125	0.184	0.324	0.215
17	0.283	0.152	0.147	0.240	0.724	0.071
18	0.217	0.209	0.154	0.330	0.687	0.113
19	0.478	0.163	0.181	-0.076	0.586	0.129
20	0.525	-0.029	0.001	-0.250	0.559	0.002
21	0.609	0.172	-0.061	0.196	0.262	0.324
22	0.689	0.142	0.095	0.401	0.079	0.077
23	0.363	-0.138	0.022	0.554	0.238	0.120
24	0.193	0.086	0.014	0.652	0.286	-0.144
25	0.609	0.122	0.034	0.204	0.260	-0.073
26	0.457	0.226	0.235	0.005	0.284	-0.366
27	0.481	0.150	0.195	0.003	0.206	-0.277
28	0.588	0.232	0.182	0.070	0.121	-0.156
29	0.583	0.230	-0.161	0.160	0.145	-0.073

COLUMN SUM OF SQUARED LOADINGS FOR EACH ROTATED FACTOR

5.65    3.34    2.29    1.61    2.68    0.94

<sup>a</sup> Total of all rotated factor loadings squared = 16.51, which is 56.92 percent of the total scale variance, and 83.65 percent of all common variance.

TABLE C-2  
 ORTHOGONAL FACTOR MATRIX<sup>a</sup> ROTATED TO VARIMAX CRITERION FOR  
 THE CONSUMER ACCULTURATION TEST

	1	2	3	4	5
1	0.232	0.030	0.144	0.611	0.172
2	0.262	0.095	0.026	0.161	0.025
3	-0.132	0.006	-0.011	0.004	-0.004
4	0.064	0.407	0.087	0.061	0.136
5	-0.027	-0.073	-0.189	-0.018	-0.190
6	0.062	0.013	0.072	-0.006	0.699
7	0.687	-0.020	0.111	0.150	0.149
8	0.176	-0.021	0.267	-0.001	0.008
9	-0.055	0.124	0.018	0.028	-0.109
10	0.062	0.010	0.135	0.210	0.709
11	-0.044	0.840	0.051	0.008	0.024
12	0.050	0.221	-0.072	-0.099	0.320
13	0.135	-0.090	0.058	0.578	0.175
14	0.772	-0.065	-0.018	0.226	0.098
15	-0.291	0.017	-0.233	0.092	-0.299
16	0.672	-0.009	0.198	0.067	0.010
17	-0.075	0.854	0.130	0.041	-0.023
18	-0.187	0.215	0.088	-0.114	-0.020
19	0.180	-0.029	0.217	0.516	0.059
20	0.191	0.126	-0.028	0.685	-0.094
21	0.725	-0.023	0.065	0.162	-0.076
22	0.209	-0.118	0.190	0.398	-0.014
23	0.285	0.201	-0.037	0.168	0.164
24	0.099	-0.136	0.200	-0.117	-0.057
25	0.573	-0.132	0.097	0.315	0.081
26	0.065	0.057	0.162	0.238	-0.027
27	0.102	0.014	0.173	0.698	-0.018
28	-0.007	0.096	-0.095	0.150	-0.029
29	0.221	-0.106	0.078	-0.212	-0.008
30	0.191	-0.055	0.466	0.019	-0.186
31	0.055	0.057	0.698	0.194	0.099
32	0.199	-0.061	0.493	0.422	0.147
33	0.412	0.173	0.201	0.354	0.033
34	0.034	0.105	0.599	0.143	0.189
35	0.002	-0.029	-0.036	-0.122	0.124
36	0.165	0.155	0.651	0.026	0.034

COLUMN SUM OF SQUARED LOADINGS FOR EACH ROTATED FACTOR

3.25    1.95    2.28    2.94    1.52

Table C-2 Continued

	6	7	8	9	10	11
1	-0.128	-0.052	0.074	0.287	0.037	0.026
2	-0.101	0.022	0.220	0.445	-0.033	-0.003
3	0.056	-0.029	-0.100	-0.010	-0.008	-0.420
4	0.056	0.223	0.111	0.210	-0.243	-0.277
5	0.554	0.029	-0.100	-0.093	0.091	0.026
6	-0.110	0.096	0.006	0.070	-0.044	0.114
7	-0.010	0.111	-0.022	0.050	0.059	-0.050
8	0.292	-0.025	0.086	0.053	0.413	-0.056
9	0.039	0.069	-0.057	0.017	0.601	-0.040
10	0.015	-0.018	0.009	-0.088	-0.146	-0.258
11	-0.044	-0.018	-0.012	-0.054	0.064	0.051
12	0.451	0.267	0.100	0.044	0.030	0.059
13	-0.189	-0.209	0.165	-0.126	0.046	0.103
14	-0.302	-0.053	0.094	0.207	0.299	0.116
15	-0.207	0.058	-0.202	-0.048	0.067	-0.092
16	0.058	-0.013	0.207	0.040	-0.128	-0.091
17	0.035	0.059	0.046	0.094	0.076	0.086
18	0.204	-0.007	-0.038	-0.044	-0.132	0.452
19	0.320	0.131	0.046	0.159	0.231	-0.074
20	-0.007	0.380	-0.017	0.056	0.021	-0.035
21	-0.096	-0.040	0.067	0.014	0.051	0.112
22	0.003	-0.037	0.525	0.098	0.150	0.137
23	0.081	-0.064	0.615	0.072	0.071	0.143
24	-0.048	0.365	0.333	-0.234	0.435	0.064
25	0.041	-0.025	0.225	-0.378	0.051	0.123
26	-0.325	0.036	0.518	0.057	-0.145	-0.045
27	-0.005	0.082	0.199	-0.099	-0.175	-0.179
28	-0.044	0.725	-0.006	-0.150	0.108	-0.023
29	-0.328	-0.059	0.254	0.108	0.021	0.221
30	-0.038	-0.262	0.262	-0.046	0.239	-0.004
31	-0.168	-0.059	-0.088	0.070	-0.049	0.032
32	0.193	-0.285	0.040	-0.092	0.158	-0.174
33	0.042	-0.128	0.227	-0.267	-0.123	-0.131
34	-0.234	-0.058	0.085	-0.129	0.018	0.009
35	0.179	0.746	-0.037	0.174	-0.003	0.049
36	0.068	0.076	0.145	0.071	0.139	0.086

COLUMN SUM OF SQUARED LOADINGS FOR EACH ROTATED FACTOR

1.27 1.51 1.58 0.86 1.09 0.82

<sup>a</sup> Total of all rotated factor loadings squared = 19.08, which is 53.00 percent of the total score variance, and 87.78 percent of all common variance.

TABLE C-3  
CORRELATION MATRIX FOR THE MODIFIED CAMPISI SCALE WITH SQUARED  
MULTIPLE R'S AS COMMUNALITY ESTIMATES

	1	2	3	4	5	6
1	0.422	0.103	0.423	0.257	0.184	0.038
2	0.103	0.760	0.222	0.768	0.668	0.173
3	0.423	0.222	0.538	0.302	0.302	0.225
4	0.257	0.768	0.302	0.786	0.656	0.262
5	0.184	0.668	0.302	0.656	0.668	0.138
6	0.038	0.173	0.225	0.262	0.138	0.442
7	0.439	0.278	0.576	0.337	0.281	0.307
8	0.260	0.777	0.313	0.826	0.675	0.215
9	0.127	0.029	0.290	-0.010	0.021	0.146
10	0.333	0.364	0.381	0.392	0.298	0.325
11	0.258	0.436	0.325	0.430	0.382	0.186
12	0.210	0.255	0.165	0.290	0.316	0.092
13	0.077	0.189	0.074	0.265	0.196	0.091
14	0.064	0.162	0.060	0.172	0.088	0.224
15	0.143	0.183	0.216	0.284	0.209	0.114
16	0.059	0.234	0.194	0.264	0.140	0.293
17	0.062	0.234	0.295	0.253	0.286	0.204
18	0.084	0.311	0.254	0.321	0.260	0.299
19	0.199	0.290	0.242	0.332	0.266	0.221
20	-0.003	0.058	0.113	0.139	0.075	0.130
21	0.001	0.274	0.110	0.382	0.075	0.385
22	0.048	0.252	0.247	0.334	0.228	0.219
23	-0.002	0.014	0.058	0.065	-0.046	0.109
24	0.004	0.220	0.118	0.201	0.023	0.001
25	0.060	0.215	0.179	0.307	0.133	0.179
26	0.177	0.304	0.281	0.309	0.312	0.062
27	0.138	0.235	0.206	0.295	0.214	0.033
28	0.138	0.234	0.230	0.328	0.308	0.147
29	-0.081	0.277	0.022	0.283	0.130	0.065

Table C-3 Continued

	7	8	9	10	11	12
1	0.439	0.260	0.127	0.333	0.258	0.210
2	0.278	0.777	0.029	0.364	0.436	0.255
3	0.576	0.313	0.290	0.381	0.325	0.165
4	0.337	0.826	-0.010	0.392	0.430	0.290
5	0.281	0.675	0.021	0.298	0.382	0.316
6	0.307	0.215	0.146	0.325	0.186	0.092
7	0.611	0.379	0.216	0.413	0.379	0.160
8	0.379	0.818	0.039	0.362	0.452	0.284
9	0.216	0.039	0.405	-0.074	0.081	-0.004
10	0.413	0.362	-0.074	0.740	0.729	0.406
11	0.379	0.452	0.031	0.729	0.696	0.438
12	0.160	0.284	-0.004	0.406	0.438	0.522
13	0.099	0.236	-0.078	0.373	0.318	0.414
14	0.087	0.171	-0.098	0.302	0.362	0.281
15	0.106	0.269	-0.113	0.437	0.419	0.407
16	0.187	0.215	0.020	0.446	0.494	0.488
17	0.257	0.302	-0.049	0.471	0.418	0.547
18	0.218	0.354	-0.088	0.476	0.403	0.555
19	0.267	0.356	0.026	0.488	0.502	0.511
20	0.157	0.176	0.159	0.254	0.376	0.349
21	0.039	0.303	-0.066	0.417	0.410	0.378
22	0.033	0.255	-0.139	0.501	0.472	0.358
23	0.031	-0.011	-0.167	0.308	0.233	0.332
24	-0.050	0.190	-0.170	0.352	0.219	0.267
25	0.012	0.286	0.109	0.417	0.378	0.415
26	0.152	0.304	0.154	0.352	0.460	0.394
27	0.143	0.243	0.043	0.358	0.355	0.294
28	0.174	0.363	-0.090	0.456	0.413	0.398
29	-0.051	0.332	-0.132	0.353	0.379	0.251

Table C-3 Continued

	13	14	15	16	17	18
1	0.077	0.064	0.143	0.059	0.062	0.084
2	0.189	0.162	0.183	0.234	0.234	0.311
3	0.074	0.060	0.216	0.194	0.295	0.254
4	0.265	0.172	0.284	0.264	0.253	0.321
5	0.196	0.088	0.209	0.140	0.286	0.260
6	0.091	0.224	0.114	0.293	0.204	0.299
7	0.099	0.087	0.106	0.187	0.257	0.218
8	0.236	0.171	0.269	0.215	0.302	0.354
9	-0.078	-0.098	-0.113	0.020	-0.049	-0.088
10	0.373	0.302	0.437	0.446	0.471	0.476
11	0.318	0.362	0.419	0.494	0.418	0.403
12	0.414	0.281	0.407	0.488	0.547	0.555
13	0.578	0.475	0.491	0.591	0.377	0.323
14	0.475	0.622	0.499	0.576	0.187	0.200
15	0.491	0.499	0.565	0.533	0.374	0.349
16	0.591	0.576	0.533	0.708	0.472	0.555
17	0.377	0.187	0.374	0.472	0.743	0.709
18	0.323	0.200	0.349	0.555	0.709	0.720
19	0.466	0.468	0.483	0.473	0.614	0.543
20	0.380	0.451	0.319	0.451	0.495	0.363
21	0.381	0.469	0.478	0.566	0.463	0.410
22	0.534	0.439	0.561	0.609	0.428	0.352
23	0.364	0.357	0.275	0.451	0.373	0.379
24	0.294	0.119	0.094	0.314	0.369	0.435
25	0.530	0.324	0.378	0.533	0.392	0.369
26	0.288	0.178	0.300	0.373	0.351	0.367
27	0.479	0.298	0.359	0.383	0.221	0.333
28	0.392	0.375	0.480	0.414	0.416	0.296
29	0.401	0.286	0.396	0.392	0.365	0.263

Table C-3 Continued

	19	20	21	22	23	24
1	0.199	-0.003	0.001	0.048	-0.002	0.004
2	0.290	0.058	0.274	0.252	0.014	0.220
3	0.242	0.113	0.110	0.247	0.058	0.118
4	0.332	0.139	0.382	0.334	0.065	0.201
5	0.266	0.075	0.075	0.223	-0.046	0.023
6	0.221	0.130	0.385	0.219	0.109	0.001
7	0.267	0.157	0.039	0.033	0.031	-0.050
8	0.356	0.176	0.303	0.255	-0.011	0.190
9	0.026	0.159	-0.066	-0.139	-0.167	-0.170
10	0.438	0.254	0.417	0.501	0.308	0.352
11	0.502	0.376	0.410	0.472	0.233	0.219
12	0.511	0.349	0.378	0.358	0.332	0.267
13	0.466	0.380	0.381	0.534	0.364	0.294
14	0.468	0.451	0.469	0.439	0.357	0.119
15	0.483	0.319	0.478	0.561	0.275	0.094
16	0.473	0.451	0.566	0.609	0.451	0.314
17	0.614	0.495	0.463	0.428	0.373	0.369
18	0.543	0.363	0.410	0.352	0.379	0.435
19	0.718	0.632	0.472	0.387	0.265	0.226
20	0.632	0.658	0.425	0.279	0.222	0.145
21	0.472	0.425	0.659	0.595	0.379	0.307
22	0.387	0.279	0.595	0.693	0.490	0.410
23	0.265	0.222	0.379	0.490	0.561	0.553
24	0.226	0.145	0.307	0.410	0.553	0.607
25	0.371	0.449	0.513	0.572	0.376	0.391
26	0.328	0.416	0.337	0.391	0.191	0.240
27	0.480	0.346	0.220	0.375	0.106	0.312
28	0.393	0.323	0.409	0.431	0.219	0.171
29	0.301	0.396	0.510	0.490	0.272	0.253

Table C-3 Continued

	25	26	27	28	29
1	0.060	0.177	0.138	0.138	-0.081
2	0.215	0.304	0.235	0.234	0.277
3	0.179	0.281	0.206	0.230	0.022
4	0.307	0.309	0.295	0.328	0.283
5	0.133	0.312	0.214	0.308	0.130
6	0.179	0.362	0.033	0.147	0.065
7	0.012	0.152	0.148	0.174	0.051
8	0.286	0.304	0.243	0.363	0.332
9	0.109	0.154	0.043	-0.090	-0.132
10	0.417	0.352	0.358	0.456	0.353
11	0.378	0.460	0.355	0.413	0.379
12	0.415	0.394	0.294	0.398	0.251
13	0.530	0.268	0.479	0.392	0.401
14	0.324	0.178	0.298	0.375	0.286
15	0.378	0.300	0.359	0.480	0.396
16	0.533	0.373	0.383	0.414	0.392
17	0.392	0.351	0.221	0.416	0.365
18	0.369	0.367	0.333	0.296	0.263
19	0.371	0.328	0.480	0.303	0.301
20	0.449	0.416	0.346	0.323	0.396
21	0.513	0.337	0.220	0.409	0.510
22	0.572	0.391	0.375	0.431	0.490
23	0.376	0.191	0.106	0.219	0.272
24	0.391	0.240	0.312	0.171	0.253
25	0.605	0.424	0.326	0.404	0.541
26	0.424	0.585	0.439	0.568	0.364
27	0.326	0.439	0.542	0.355	0.260
28	0.404	0.568	0.355	0.607	0.447
29	0.541	0.364	0.260	0.447	0.543

TABLE C-4  
CORRELATION MATRIX FOR THE CONSUMER ACCULTURATION TEST  
WITH SQUARED MULTIPLE R'S AS COMMUNALITY ESTIMATES

	1	2	3	4	5	6
1	0.576	0.342	-0.060	0.035	-0.168	0.163
2	0.342	0.411	0.036	0.192	-0.155	0.084
3	-0.060	0.036	0.293	0.082	0.123	-0.086
4	0.085	0.192	0.082	0.450	-0.148	0.129
5	-0.168	-0.155	0.123	-0.148	0.442	-0.204
6	0.163	0.084	-0.086	0.129	-0.204	0.513
7	0.317	0.194	-0.117	0.135	-0.097	0.119
8	0.077	0.070	-0.061	-0.035	0.021	-0.065
9	0.002	-0.014	0.082	-0.082	0.192	-0.091
10	0.244	-0.028	0.119	0.239	-0.214	0.531
11	0.001	0.058	0.008	0.255	-0.098	0.050
12	-0.061	0.026	-0.109	0.210	0.226	0.214
13	0.453	0.161	-0.054	-0.072	-0.159	0.149
14	0.393	0.385	-0.180	0.054	-0.018	0.160
15	-0.124	-0.213	-0.041	-0.042	-0.043	-0.259
16	0.250	0.246	-0.086	0.153	-0.032	0.080
17	0.137	0.117	-0.040	0.381	-0.080	-0.014
18	-0.155	-0.272	-0.123	0.001	0.123	0.055
19	0.380	0.147	0.024	0.119	0.038	0.020
20	0.455	0.155	-0.027	0.155	-0.030	-0.029
21	0.276	0.215	-0.149	-0.007	-0.070	0.061
22	0.406	0.314	-0.134	0.003	-0.083	0.028
23	0.238	0.218	-0.153	0.151	-0.046	0.120
24	-0.082	-0.024	-0.127	-0.142	-0.083	0.007
25	0.248	0.087	-0.124	-0.075	-0.031	-0.003
26	0.270	0.216	-0.091	0.158	-0.268	0.049
27	0.450	0.164	-0.009	0.228	-0.046	-0.016
28	-0.013	-0.018	0.075	0.092	0.068	0.057
29	0.051	0.124	-0.110	-0.144	-0.206	0.061
30	0.104	0.029	-0.040	-0.088	-0.068	-0.075
31	0.234	0.119	-0.026	0.086	-0.256	0.151
32	0.396	0.023	0.069	0.014	0.028	0.094
33	0.301	0.165	0.019	0.112	-0.059	0.015
34	0.265	0.086	0.011	0.028	-0.249	0.172
35	-0.030	0.059	-0.025	0.198	0.109	0.164
36	0.183	0.096	-0.116	0.198	-0.113	0.062

Table C-4 Continued

	7	8	9	10	11	12
1	0.317	0.077	0.002	0.244	0.001	-0.061
2	0.194	0.070	-0.014	-0.028	0.058	0.026
3	-0.117	-0.061	0.082	0.119	0.008	-0.109
4	0.135	-0.035	-0.082	0.239	0.255	0.210
5	-0.097	0.021	0.192	-0.214	-0.098	0.226
6	0.119	-0.065	-0.091	0.513	0.050	0.214
7	0.567	0.199	0.063	0.191	-0.083	0.104
8	0.199	0.428	0.206	-0.003	-0.024	0.187
9	0.063	0.206	0.405	-0.159	0.124	0.031
10	0.191	-0.308	-0.159	0.599	0.028	0.208
11	-0.083	-0.024	0.124	0.028	0.715	0.175
12	0.104	0.187	0.031	0.208	0.175	0.465
13	0.163	-0.011	-0.014	0.224	-0.071	-0.139
14	0.559	0.167	0.026	0.139	-0.100	0.008
15	-0.223	-0.211	0.101	-0.195	0.056	-0.132
16	0.469	0.114	-0.169	0.141	-0.005	0.063
17	-0.058	0.083	0.166	-0.058	0.742	0.197
18	-0.198	-0.062	-0.049	-0.138	0.204	0.098
19	0.261	0.230	-0.008	0.226	0.015	0.110
20	0.223	0.093	0.009	0.096	0.123	-0.032
21	0.492	0.100	-0.004	-0.020	-0.002	-0.064
22	0.211	0.146	0.065	0.057	-0.127	0.025
23	0.251	0.078	0.013	0.137	0.208	0.189
24	0.033	0.314	0.226	-0.076	-0.056	-0.070
25	0.476	0.179	-0.058	0.177	-0.127	0.014
26	0.105	-0.073	-0.075	0.037	0.004	-0.118
27	0.161	0.063	-0.066	0.255	0.013	-0.067
28	0.052	-0.096	0.160	-0.045	0.095	0.140
29	0.115	0.026	-0.078	-0.142	-0.041	-0.118
30	0.064	0.251	0.086	-0.069	0.026	-0.143
31	0.201	0.056	0.016	0.201	0.100	-0.122
32	0.211	0.305	0.051	0.284	-0.022	-0.057
33	0.376	0.117	-0.109	0.215	0.125	0.025
34	0.122	0.117	-0.001	0.248	0.167	-0.056
35	0.065	0.049	-0.017	0.004	-0.054	0.357
36	0.237	0.272	0.153	0.107	0.113	0.088

Table C-4 Continued

	13	14	15	16	17	18
1	0.453	0.393	-0.124	0.250	0.137	-0.155
2	0.161	0.385	-0.213	0.246	0.117	-0.072
3	-0.054	-0.180	-0.041	-0.086	-0.040	-0.123
4	-0.072	0.054	-0.042	0.153	0.381	0.001
5	-0.159	-0.018	-0.043	-0.032	-0.080	0.123
6	0.149	0.160	-0.259	0.080	-0.014	0.055
7	0.163	0.559	-0.223	0.469	-0.058	-0.198
8	-0.011	0.167	-0.211	0.114	0.083	-0.062
9	-0.014	0.026	0.101	-0.169	0.166	-0.049
10	0.224	0.139	-0.195	0.141	-0.058	-0.138
11	-0.071	-0.100	0.056	-0.005	0.742	0.204
12	-0.139	0.008	-0.132	0.063	0.197	0.098
13	0.523	0.288	-0.130	0.136	-0.039	-0.088
14	0.288	0.704	-0.241	0.548	-0.066	-0.141
15	-0.130	-0.241	0.420	-0.317	-0.078	-0.093
16	0.136	0.548	-0.317	0.569	-0.049	-0.162
17	-0.039	-0.066	-0.078	-0.049	0.755	0.240
18	-0.088	-0.141	-0.093	-0.162	0.240	0.356
19	0.149	0.280	-0.092	0.262	-0.018	-0.036
20	0.378	0.299	0.125	0.198	0.105	-0.087
21	0.241	0.642	-0.210	0.541	-0.059	-0.140
22	0.380	0.323	-0.157	0.309	-0.042	-0.063
23	0.214	0.354	-0.246	0.288	0.178	-0.017
24	0.076	0.074	-0.092	0.181	-0.081	-0.007
25	0.414	0.515	-0.265	0.366	-0.132	-0.089
26	0.268	0.141	-0.070	0.170	0.100	-0.125
27	0.470	0.185	-0.060	0.217	0.017	-0.147
28	-0.067	-0.056	0.084	-0.039	0.130	-0.067
29	-0.009	0.205	-0.101	0.140	-0.111	-0.043
30	0.208	0.229	-0.109	0.322	-0.001	-0.048
31	0.181	0.066	-0.152	0.193	0.111	0.034
32	0.375	0.248	-0.194	0.247	0.012	-0.185
33	0.320	0.336	-0.174	0.419	0.135	-0.062
34	0.236	0.022	-0.186	0.158	0.137	-0.002
35	-0.224	0.010	-0.060	-0.015	0.048	0.055
36	0.040	0.189	-0.209	0.182	0.252	0.106

Table C-4 Continued

	19	20	21	22	23	24
1	0.380	0.455	0.276	0.406	0.238	-0.082
2	0.147	0.155	0.215	0.314	0.218	-0.024
3	0.024	-0.027	-0.149	-0.134	-0.153	-0.127
4	0.110	0.155	-0.007	0.003	0.151	-0.142
5	0.038	-0.030	-0.070	-0.083	-0.046	-0.083
6	0.020	-0.029	0.061	0.028	0.120	0.007
7	0.261	0.223	0.492	0.211	0.251	0.033
8	0.230	0.093	0.100	0.146	0.078	0.314
9	-0.008	0.009	-0.004	0.065	0.013	0.226
10	0.226	0.056	-0.020	0.057	0.137	-0.076
11	0.015	0.123	-0.002	-0.127	0.208	-0.056
12	0.110	-0.032	-0.064	0.025	0.189	-0.070
13	0.149	0.378	0.241	0.380	0.214	0.076
14	0.280	0.299	0.542	0.323	0.354	0.074
15	-0.092	0.125	-0.210	-0.157	-0.246	-0.092
16	0.262	0.198	0.541	0.309	0.288	0.181
17	-0.018	0.105	-0.059	-0.042	0.178	-0.081
18	-0.036	-0.087	-0.140	-0.063	-0.017	-0.007
19	0.594	0.439	0.181	0.298	0.307	-0.011
20	0.439	0.535	0.4259	0.265	0.155	-0.052
21	0.181	0.259	0.581	0.313	0.244	0.103
22	0.298	0.285	0.313	0.583	0.493	0.278
23	0.307	0.155	0.244	0.493	0.610	0.150
24	-0.011	-0.052	0.103	0.278	0.150	0.465
25	0.243	0.235	0.493	0.370	0.350	0.237
26	0.106	0.152	0.169	0.337	0.359	0.069
27	0.354	0.530	0.187	0.345	0.147	-0.020
28	0.169	0.166	-0.004	0.033	0.009	0.067
29	-0.152	-0.114	0.186	0.119	0.294	0.096
30	0.086	0.063	0.278	0.324	0.160	0.390
31	0.276	0.106	0.092	0.228	0.017	0.010
32	0.445	0.230	0.233	0.298	0.206	0.085
33	0.217	0.282	0.312	0.338	0.302	0.085
34	0.093	0.073	0.073	0.178	0.068	0.153
35	0.079	-0.048	-0.069	-0.131	-0.079	0.023
36	0.179	0.329	0.208	0.288	0.174	0.164

Table C-4 Continued

	25	26	27	28	29	30
1	0.248	0.270	0.450	-0.013	0.051	0.104
2	0.087	0.216	0.164	-0.018	0.124	0.029
3	-0.124	-0.091	-0.009	0.075	-0.110	-0.040
4	-0.075	0.158	0.228	0.092	-0.144	-0.088
5	-0.031	-0.268	-0.046	0.068	-0.206	-0.068
6	-0.003	0.049	-0.016	0.057	0.061	-0.075
7	0.476	0.105	0.161	0.052	0.115	0.264
8	0.179	-0.073	0.053	-0.096	0.026	0.251
9	-0.058	-0.075	-0.066	0.160	-0.078	0.086
10	0.177	0.087	0.255	-0.045	-0.142	-0.069
11	-0.127	0.004	0.013	0.095	-0.041	0.026
12	0.014	-0.118	-0.067	0.140	-0.118	-0.143
13	0.414	0.268	0.470	-0.067	-0.009	0.208
14	0.515	0.141	0.185	-0.056	0.205	0.229
15	-0.265	-0.070	-0.060	0.084	-0.101	-0.109
16	0.366	0.170	0.217	-0.039	0.140	0.322
17	-0.132	0.100	0.017	0.130	-0.111	-0.001
18	-0.089	-0.125	-0.147	-0.067	-0.043	-0.048
19	0.243	0.106	0.354	0.169	-0.150	0.086
20	0.235	0.152	0.530	0.166	-0.114	0.063
21	0.493	0.169	0.187	-0.004	0.186	0.278
22	0.370	0.337	0.345	0.033	0.119	0.324
23	0.350	0.359	0.147	0.009	0.294	0.160
24	0.237	0.069	-0.020	0.067	0.096	0.390
25	0.678	0.170	0.361	0.079	0.143	0.169
26	0.170	0.501	0.388	0.034	0.206	0.215
27	0.361	0.388	0.658	0.089	-0.137	0.115
28	0.079	0.034	0.089	0.595	-0.070	-0.235
29	0.143	0.206	-0.137	-0.070	0.431	0.141
30	0.169	0.215	0.115	-0.235	0.141	0.518
31	0.072	0.119	0.226	-0.028	0.117	0.311
32	0.376	0.391	0.381	-0.167	-0.013	0.381
33	0.471	0.257	0.437	0.023	-0.004	0.211
34	0.213	0.273	0.219	-0.034	0.145	0.262
35	-0.137	-0.099	-0.008	0.526	-0.026	-0.214
36	0.230	0.235	0.127	-0.029	0.058	0.373

Table C-4 Continued

	31	32	33	34	35	36
1	0.234	0.396	0.301	0.265	-0.030	0.183
2	0.119	0.023	0.165	0.086	0.059	0.096
3	-0.026	0.169	0.019	0.011	-0.025	-0.116
4	0.086	0.014	0.112	0.028	0.198	0.198
5	-0.256	0.028	-0.059	-0.249	0.109	-0.113
6	0.151	0.094	0.015	0.172	0.164	0.062
7	0.201	0.211	0.376	0.122	0.065	0.237
8	0.056	0.305	0.117	0.117	0.049	0.272
9	0.016	0.051	-0.109	-0.001	-0.017	0.153
10	0.201	0.284	0.215	0.248	0.004	0.107
11	0.100	-0.022	0.125	0.167	-0.054	0.113
12	-0.122	-0.057	0.025	-0.056	0.357	0.088
13	0.181	0.375	0.320	0.236	-0.224	0.040
14	0.066	0.248	0.336	0.022	0.010	0.189
15	-0.152	-0.194	-0.174	-0.186	-0.060	-0.209
16	0.193	0.247	0.419	0.158	-0.015	0.182
17	0.111	0.012	0.135	0.137	0.048	0.252
18	0.034	-0.185	-0.062	-0.002	0.055	0.106
19	0.276	0.445	0.217	0.093	0.079	0.179
20	0.106	0.230	0.282	0.073	-0.048	0.029
21	0.092	0.233	0.312	0.073	-0.069	0.208
22	0.228	0.298	0.338	0.178	-0.131	0.288
23	0.017	0.206	0.302	0.068	-0.079	0.174
24	0.010	0.085	0.085	0.153	0.023	0.164
25	0.072	0.370	0.471	0.213	-0.137	0.230
26	0.119	0.091	0.257	0.273	-0.099	0.235
27	0.226	0.381	0.437	0.219	-0.008	0.127
28	-0.028	-0.167	0.023	-0.034	0.526	-0.029
29	0.117	-0.013	-0.004	0.145	-0.026	0.058
30	0.311	0.381	0.211	0.262	-0.214	0.373
31	0.590	0.412	0.221	0.527	-0.154	0.435
32	0.412	0.671	0.437	0.362	-0.227	0.392
33	0.221	0.437	0.551	0.276	-0.228	0.179
34	0.527	0.362	0.276	0.497	-0.137	0.420
35	-0.154	-0.227	-0.228	-0.137	0.635	0.069
36	0.435	0.392	0.179	0.420	0.069	0.556

TABLE C-5

MEANS AND STANDARD DEVIATIONS FOR THE THREE DEPENDENT CRITERION VARIABLES INCLUDED IN THE STEPWISE MULTIPLE REGRESSIONS

Criterion Variable	Mean <sup>a</sup>	Standard Deviation
Total Score, SFT (1) <sup>b</sup>	0.472	0.092
Total Score, MCS (2)	0.654	0.146
Total Score, CAT (3)	0.689	0.131

<sup>a</sup> Transgenerations were performed on the total scores to simplify comparisons between the three measures.

<sup>b</sup> The numbers in parentheses correspond to variable numbers in the stepwise regressions.

TABLE C-6

MEANS AND STANDARD DEVIATIONS FOR THE FOURTEEN INDEPENDENT PREDICTOR VARIABLES INCLUDED IN THE CANONICAL CORRELATION ANALYSIS AND THE STEPWISE MULTIPLE REGRESSIONS

Predictor Variable	Mean	Standard Deviation
1 (4) <sup>a</sup> Age	3.250	1.774
2 (5) Sex	0.681	0.411
3 (6) American Roommate	0.405	0.491
4 (7) Expresses Christianity	0.449	0.497
5 (8) American Spouse	0.164	0.239
6 (9) Mobility	0.457	0.498
7 (10) Urban Background	0.667	0.423
8 (11) Remain in U.S.	0.465	0.498
9 (12) Father White Collar	0.710	0.392
10 (13) Brothers and Sisters	0.685	0.411
11 (14) First Born	0.267	0.443
12 (15) Time in U.S.	2.769	1.661
13 (16) Progressive Country	0.371	0.483
14 (17) Television	0.652	0.469

<sup>a</sup> The numbers in parentheses correspond to variable numbers in the stepwise regressions; the other numbers are the variable numbers in the canonical correlation analysis.

TABLE C-7

MEANS AND STANDARD DEVIATIONS FOR THE EIGHTEEN DEPENDENT CRITERION VARIABLES INCLUDED IN THE CANONICAL CORRELATION ANALYSIS

Criterion Variable	Mean	Standard Deviation
1 Assortment	0.045	0.916
2 Labor-Saving	-0.032	0.927
3 General	-0.000	0.887
4 Type of Outlet	-0.009	0.907
5 Purchasing Effort	-0.056	0.862
6 Acculturated Consumer	-0.178	0.836
7 Branding	-0.000	0.879
8 Unacculturated Consumer	-0.000	0.840
9 Undefined	-0.000	0.812
10 Merchandising	-0.081	0.803
11 Shopping Habits	0.000	0.763
12 Stick Figures Test	20.276	4.010
13 Cultural Life Style	-0.082	0.939
14 Foreign Food	0.000	0.952
15 American Food	-0.010	0.055
16 Personal Expression	-0.033	0.875
17 Leisure Time	0.000	0.899
18 Undefined	0.000	0.825

TABLE C-8

CORRELATION MATRIX FOR STEPWISE MULTIPLE REGRESSION ANALYSIS

Table C-8 Continued

	10	11	12	13	14	15	16	17
Stick Figures Test	1	0.001	0.297	0.198	-0.196	-0.040	0.450	0.466
Modified Campisi Scale	2	0.115	0.215	0.084	-0.051	0.038	0.426	0.626
Consumer Acculturation Test	3	0.259	0.356	0.080	-0.044	0.091	0.459	0.613
Age	4	-0.280	-0.442	0.001	0.105	0.117	-0.433	-0.013
Sex	5	0.090	-0.027	0.040	-0.082	-0.080	-0.008	0.162
American Roommate	6	0.122	0.039	-0.049	0.091	-0.062	-0.024	0.166
Expresses Christianity	7	0.045	0.201	-0.095	-0.118	0.122	0.347	0.277
American Spouse	8	-0.032	0.199	0.030	0.133	0.011	0.241	0.030
Mobility	9	0.300	0.393	0.046	-0.066	0.072	0.329	0.120
Urban Background	10	1.000	0.105	0.150	0.009	-0.036	0.087	0.127
Remain in U.S.	11	1.000	0.011	-0.015	0.061	0.061	0.560	0.214
Father White Collar	12		1.000	0.067	-0.006	-0.059	-0.130	0.037
Brothers and Sisters	13			1.000	0.317	-0.294	-0.032	-0.008
First Barn	14				1.000	0.060	0.182	0.089
Time in U.S.	15					1.000	0.340	0.363
Progressive Country	16						1.000	0.079
Television	17							1.000

TABLE C-9

## CORRELATION MATRIX FOR FOURTEEN PREDICTOR VARIABLES INCLUDED IN THE CANONICAL ANALYSIS

	1	2	3	4	5	6	7
1	1.000	-0.152	-0.158	-0.103	0.094	-0.404	-0.280
2	-0.152	1.000	0.123	0.076	-0.045	0.066	0.090
3	-0.158	0.123	1.000	0.174	-0.209	0.019	0.122
4	-0.103	0.076	0.174	1.000	0.063	0.217	0.045
5	0.094	-0.045	-0.209	0.063	1.000	0.058	-0.032
6	-0.404	0.066	0.019	0.217	0.058	1.000	0.300
7	-0.280	0.090	0.122	0.045	-0.032	0.300	1.000
8	-0.442	-0.027	0.040	0.201	0.199	0.393	0.105
9	0.001	0.040	-0.049	-0.095	0.080	0.046	0.150
10	0.105	-0.082	0.091	-0.118	0.133	-0.066	0.009
11	0.117	-0.080	-0.062	0.122	0.011	0.072	-0.036
12	-0.433	-0.309	-0.024	0.347	0.241	0.329	0.087
13	-0.013	0.162	0.166	0.277	0.030	0.120	0.127
14	-0.096	0.098	-0.060	0.297	0.100	0.272	0.007
	8	9	10	11	12	13	14
1	-0.442	0.001	0.105	0.117	-0.433	-0.013	-0.096
2	-0.027	0.040	-0.082	-0.080	-0.009	0.162	0.098
3	0.040	-0.049	0.091	-0.062	-0.024	0.166	-0.060
4	0.201	-0.095	-0.118	0.122	0.347	0.277	0.297
5	0.199	0.030	0.133	0.011	0.241	0.030	0.100
6	0.393	0.046	-0.056	0.072	0.329	0.120	0.272
7	0.105	0.150	0.009	-0.036	0.087	0.127	0.007
8	1.000	0.011	-0.015	0.061	0.560	0.214	0.431
9	0.011	1.000	0.067	-0.006	-0.059	-0.130	0.037
10	-0.015	0.067	1.000	0.317	-0.294	-0.032	-0.009
11	0.061	-0.006	0.317	1.000	0.060	0.182	0.090
12	0.560	-0.059	-0.294	0.060	1.000	0.340	0.363
13	0.214	-0.130	-0.032	0.182	0.340	1.000	0.079
14	0.431	0.037	-0.009	0.090	0.363	0.079	1.000

TABLE C-10

## CORRELATION MATRIX FOR EIGHTEEN CRITERION VARIABLES INCLUDED IN THE CANONICAL ANALYSIS

	1	2	3	4	5	6
1	1.000	-0.051	0.030	-0.023	-0.084	-0.014
2	-0.051	1.000	-0.011	0.062	0.006	0.030
3	0.030	-0.011	1.000	0.065	0.012	0.040
4	-0.023	0.062	0.065	1.000	0.115	-0.116
5	-0.084	0.006	0.012	0.115	1.000	-0.061
6	-0.014	0.030	0.040	-0.116	-0.061	1.000
7	-0.223	-0.002	-0.046	0.097	-0.002	-0.068
8	0.125	0.049	0.043	0.115	-0.091	0.047
9	-0.202	-0.035	-0.011	0.047	0.043	-0.045
10	-0.022	0.073	0.050	0.072	0.066	0.111
11	0.083	0.068	-0.028	-0.046	-0.001	0.005
12	0.319	-0.006	0.157	0.136	0.118	-0.008
13	-0.201	-0.095	0.229	-0.018	-0.050	0.096
14	0.219	0.153	0.216	0.164	0.093	0.074
15	0.027	0.040	-0.183	0.022	0.163	-0.123
16	0.162	-0.175	-0.107	-0.144	0.060	0.075
17	0.278	0.016	-0.100	0.022	-0.160	0.073
18	-0.166	0.046	0.032	-0.109	0.093	-0.037
	7	8	9	10	11	12
1	-0.223	0.125	-0.202	-0.022	0.083	0.319
2	-0.002	0.049	-0.035	0.073	0.068	-0.006
3	-0.046	0.043	-0.011	0.050	-0.028	0.157
4	0.097	0.115	0.047	0.072	-0.046	0.136
5	-0.002	-0.091	0.043	0.066	-0.001	0.118
6	-0.068	0.047	-0.045	0.111	0.005	-0.008
7	1.000	-0.006	0.040	0.039	0.000	-0.348
8	-0.006	1.000	-0.005	0.056	0.082	0.138
9	0.040	-0.005	1.000	0.077	0.028	-0.017
10	-0.039	0.056	0.077	1.000	0.076	0.156
11	0.004	0.082	0.028	0.076	1.000	0.156
12	-0.348	0.138	-0.017	0.156	0.156	1.000
13	0.055	-0.051	0.015	-0.098	-0.115	-0.109
14	-0.076	0.223	-0.143	0.192	0.210	0.306
15	-0.226	0.219	0.079	0.042	-0.004	0.128
16	-0.021	0.026	-0.130	-0.086	-0.032	0.040
17	-0.013	0.157	0.053	0.046	0.074	-0.004
18	-0.043	-0.074	-0.062	-0.206	0.157	0.114

Table C-10 Continued

	13	14	15	16	17	18
1	-0.201	0.219	0.027	0.162	0.278	-0.166
2	-0.095	0.153	0.040	-0.175	0.016	0.046
3	0.229	0.216	-0.183	-0.107	-0.100	0.032
4	-0.018	0.164	0.022	-0.144	0.022	-0.109
5	-0.050	0.093	0.163	0.060	-0.160	0.093
6	0.096	0.074	-0.123	0.075	0.073	-0.037
7	0.055	-0.076	-0.226	-0.021	-0.013	-0.043
8	-0.051	0.223	0.220	0.026	0.157	-0.074
9	0.015	-0.143	0.079	-0.130	0.053	-0.062
10	-0.098	0.192	0.042	-0.086	-0.046	-0.206
11	-0.115	0.210	-0.004	-0.032	0.074	0.157
12	-0.109	0.306	0.128	0.040	-0.004	0.114
13	1.000	-0.158	0.005	-0.099	-0.019	0.006
14	-0.158	1.000	0.004	0.004	0.008	0.005
15	0.005	0.004	1.000	-0.016	0.283	0.174
16	-0.099	0.004	-0.016	1.000	0.043	0.012
17	-0.019	0.008	0.283	0.043	1.000	0.014
18	0.006	0.005	0.174	0.012	0.014	1.000

TABLE C-11

INTERCORRELATION MATRIX OF FOURTEEN PREDICTOR AND EIGHTEEN CRITERION VARIABLES INCLUDED IN THE CANONICAL ANALYSIS

	1	2	3	4	5	6	7
1	-0.119	0.003	0.201	0.185	0.017	0.224	0.134
2	-0.175	-0.138	-0.021	-0.008	0.099	0.182	0.059
3	0.130	0.060	0.096	0.115	0.055	0.181	0.236
4	-0.079	-0.030	-0.035	-0.011	0.028	0.048	0.015
5	-0.218	0.122	-0.071	-0.136	0.071	0.205	0.058
6	-0.031	0.039	0.187	-0.020	-0.097	0.180	0.054
7	0.148	-0.072	-0.071	-0.095	-0.036	-0.191	-0.076
8	-0.024	-0.007	0.067	0.157	0.113	0.063	0.092
9	-0.069	-0.062	-0.113	-0.126	0.035	-0.099	-0.063
10	-0.248	0.097	0.090	0.220	0.056	0.261	0.130
11	-0.112	0.156	0.042	0.193	-0.076	0.014	-0.046
12	-0.151	0.084	0.149	0.254	0.199	0.235	0.007
13	0.215	-0.124	0.043	-0.160	0.103	-0.081	0.101
14	-0.029	0.145	0.225	0.369	0.097	0.244	0.172
15	-0.227	0.028	-0.098	-0.123	0.021	0.043	0.121
16	-0.041	0.016	-0.100	-0.028	-0.083	0.125	0.078
17	-0.061	-0.050	-0.031	0.009	-0.120	-0.075	-0.033
18	0.038	-0.030	-0.023	-0.170	-0.017	-0.087	-0.109
	8	9	10	11	12	13	14
1	0.261	-0.119	-0.054	-0.047	0.234	0.282	-0.123
2	0.073	-0.045	-0.175	-0.107	0.152	0.066	0.190
3	0.033	0.016	0.131	-0.037	0.013	0.149	0.209
4	0.177	-0.113	0.097	0.133	0.213	0.222	0.150
5	0.027	0.087	-0.045	0.139	0.256	0.039	0.022
6	-0.197	-0.060	0.085	-0.103	-0.110	-0.038	0.081
7	-0.124	-0.009	0.113	-0.071	-0.282	-0.299	0.018
8	0.179	0.170	0.117	-0.037	0.133	0.262	0.178
9	-0.033	-0.099	0.111	-0.027	-0.034	-0.116	-0.070
10	0.168	-0.008	-0.018	-0.104	0.250	0.181	0.199
11	0.174	-0.167	-0.038	-0.079	0.105	0.132	0.198
12	0.307	0.192	-0.189	-0.046	0.443	0.477	0.112
13	-0.186	0.010	-0.386	-0.175	-0.183	-0.133	-0.141
14	0.160	-0.051	-0.015	0.007	0.247	0.570	0.200
15	0.120	-0.120	-0.078	0.111	0.285	0.261	-0.043
16	0.082	0.208	-0.087	-0.444	0.084	-0.032	0.021
17	0.073	-0.043	-0.009	-0.053	0.174	0.071	0.043
18	-0.108	-0.140	-0.081	-0.036	-0.102	-0.101	0.055

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## BIOGRAPHICAL SKETCH

Joseph Franklin Hair, Jr., was born on May 8, 1944, in Dalton, Georgia. In April, 1966, he received the degree Bachelor of Arts (Economics), from the College of Arts and Sciences at the University of Florida. During the following years he entered graduate school in the College of Business Administration at the University of Florida and was employed intermittently. For the academic year 1967-68, he served as graduate assistant in the International Marketing Resource Center at the University of Florida. He has also been employed as a student trainee in the Market Research Department of N. V. Philips' Gloeilampenfabrieken, in Eindhoven, Netherlands, and as a research assistant for both the Jacksonville Area Chamber of Commerce and Food Fair Stores, Inc., Jacksonville, Florida.

In August, 1969, he received the degree Master of Arts (Marketing), from the College of Business Administration at the University of Florida. During the academic years 1968 to 1971, he continued his graduate studies under a United States Steel Foundation Fellowship, and was a graduate teaching associate in the Department of Marketing.

He married the former Dale Curtis Andrews, of Atlanta, Georgia, in June, 1970.

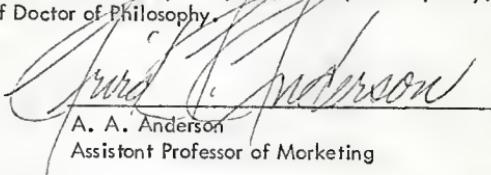
In September, 1971, he will join the Department of Marketing and Management as an Assistant Professor of Marketing at the University of Mississippi.

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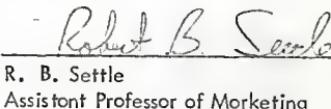
J. D. Butterworth, Chairman  
Professor of Marketing

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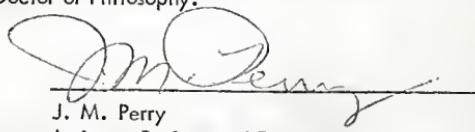
A. A. Anderson  
Assistant Professor of Marketing

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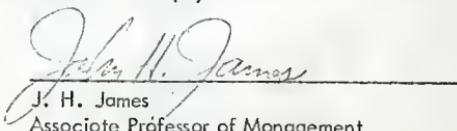
R. B. Settle  
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J. M. Perry  
Assistant Professor of Economics

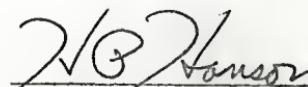
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



J. H. James  
Associate Professor of Management

This dissertation was submitted to the Department of Marketing in the College of Business Administration and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1971

  
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Dean, Graduate School

UNIVERSITY OF FLORIDA



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